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THE
NUMISMATIC CHRONICLE
AND
JOURNAL OF
THE ROYAL NUMISMATIC SOCIETY

PRINTED AT OXFORD, ENGLAND
BY FREDERICK HALL
PRINTER TO THE UNIVERSITY

THE
NUMISMATIC CHRONICLE
AND
JOURNAL
OF THE
ROYAL NUMISMATIC SOCIETY

EDITED BY

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AND

G. C. BROOKE, B.A. 1227

FOURTH SERIES—VOL. XIX



737.05
N.C.

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I.

GREEK COINS ACQUIRED BY THE BRITISH MUSEUM IN 1917 AND 1918.

[SEE PLATES I, II.]

THANKS to the bequest by the late Mr. John Gorman Ford of his collection of Greek Coins (numbering 162 specimens, mostly of the finest period, together with two Roman aurei), and also to the generous gift by Sir Evelyn Grant Duff, K.C.M.G., of the pick of his collection (consisting chiefly of Parthian and Sassanian coins), the acquisitions of the Department in what might have been very lean years have not been inconsiderable either in quality or in quantity.

From the following pages I have omitted all but one of those coins of Southern Italy with which Sir Arthur Evans has dealt in his article on a find of coins from Magna Graecia;¹ the exception is the interesting new type of Metapontum [Pl. I. 2].

NOLA.

Obv.—Head of nymph r., wearing broad fillet with Greek fret, and triple-drop ear-ring; large curling lock above forehead.

Rev.—**ΝΩΛΛΙΩ**[N] in ex. Human-headed bull walking r.; above, Nike flying r., crowning him.

Di. ← 19 mm. Wt. 7.19 grammes (111.0 grains).
[Pl. I. 1.] Ford Bequest.

¹ *Num. Chron.*, 1918, pp. 133 ff.

The obverse is from the same die as A. Sambon, *Monn. Ant. de l'Italie*, No. 806a, Pl. iv, as well as B.M.C., Nola, No. 1, and probably another in the British Museum (presented by Sir R. H. Lang, 1913). The reverse is, I think, from the same die as B.M.C., No. 7, the obverse of which is certainly from the same hand.

METAPONTUM.

Obv.—Head of Heracles r., bearded, hair bound with fillet having a point rising in front; club at shoulder.

Rev.—**META** on r. upwards; ear of barley; symbol off the flan.

R. ↑ 21 mm. Wt. 7.33 grammes (113.1 grains).
[Pl. I. 2.] Ford Bequest.

A new type, for the position of which in the Metapontine series I may refer to Sir Arthur Evans's paper on the hoard from which it came (*Num. Chron.*, 1918, p. 146).

CROTON.

Obv.—**ΟΡΓ** on l. upwards. Tripod lebes. Plain (?) border.

Rev.—Eagle flying r., incuse. Border (?).

R. → 18 mm. Wt. 8.10 grammes (125.0 grains).
[Pl. I. 3.] Ford Bequest.

Restruck on a didrachm of Agrigentum; the crab's legs are visible above the eagle's head on the rev., and the outline of the eagle on the obverse.

Obv.—Head of Hera Lakinia nearly facing, wearing decorated stephanos; border of dots (?).

Rev.—**ΚΡΟΤΩΝΙ** on l. Nude Heracles resting l. on rock covered with lion-skin, r. holding cup. l. club; in field l. large **B**. Plain border.

R. → 22.5 mm. Wt. 7.39 grammes (144.0 grains).
[Pl. I. 4.] Ford Bequest.

This is from the same *obverse* die as Hirsch, xviii. 2216; xxvi. 45 and 46; possibly also as B.M.C., No. 95, which shows the die very badly fractured. It also shares the same *reverse* die with Hirsch, xviii. 2216 and xxvi. 46. The curious way in which the letter **B** is placed in the field suggests that it is an addition to the die. Staters of the same types also exist with a large **B** beside the head on the *obverse* (B.M.C., *Italy*, Croton, No. 93; Hirsch, xxi. 471). The letter **Δ** is also found defacing one or both sides of staters of the same type (e.g. B.M.C., Nos. 90, 91; Hirsch, xxi. 470). Though I have not been able to find examples with other letters, such as **A** and **Γ**, I am inclined to think that we have here another case of series marks.²

TARENTUM.

From among the Tarentine staters of the Ford Bequest, mention may be made of three brilliant specimens of which description and illustrations are unnecessary, as they are similar to pieces already included in Evans's *Horsemen of Tarentum*.³

I may also mention a new variety, resembling B.M.C., No. 212 (Evans, IV H. 5), in its *obverse*, and B.M.C., No. 213 (Evans, IV H. 1), in its *reverse*, except that it lacks the two stars.

SCYLACIUM (?).

Obv.—Young male head l. in pileus. Plain border.

Rev.—Skylla l., holding club in l., with foreparts of dogs at her waist. Plain border in incuse circle.

² Cp. *Num. Chron.*, 1914, pp. 100-1, and 1916, p. 229 (**A-E** and **Γ** on coins of Messina).

³ Evans, VI A. 1, VII A. 1, and VII F. 1.

Æ. † 22 mm. Wt. 9.53 grammes (147.1 grains).
 [Pl. I. 5.] Ford Bequest. Cp. Garrucci,
 113. 26.

Garrucci says that the sea-monster on such pieces is sometimes male, sometimes female. On the present fine specimen it is clearly the latter, and the presumption is that it is always female. These coins are frequently attributed to Cumae, on the strength of the appearance of Skylla on certain Cumæan didrachms; but it is unlikely that uninscribed bronze without the characteristic mussel-shell should have been issued from that mint. Scylacium (or Scylletium) in Bruttium seems to be a better, though of course quite conjectural, attribution.

GELA.

Obv.—[ΓΕΛΛΙΩΝ on r.] Quadriga to l.; above, eagle flying l.; in exergue, stalk of barley.

Rev.—[ΑΛΞΤ Forepart of man-headed bull r.; above, barley-corn. Incuse circle.

Æ. ← 27 mm. Wt. 16.54 grammes (255.2 grains).
 [Pl. I. 6.] Ford Bequest.

The obverse die broke (below the forefeet of the nearest horse and in the left portion of the exergue) at an early stage, but not before it had been used for such pieces as B.M.C., No. 59, and Hirsch, xiv. 171, which are also from the same reverse die as the new specimen. In this broken condition it was used to strike other pieces such as Ward, No. 157, and Hirsch, xxi. 585. It was also used further for the rare tetradrachms with the complete bull standing, such as Sir Arthur Evans's piece (*Burl. Fine Arts Club*, 1903, Pl. cii, No. 144) and Egger Sale, 7 i. 1908, No. 36. As the two types are not likely to have been issued

simultaneously, it follows that the coins with the complete bull are later than the more common ones with the half-bull.

LEONTINI.

Obv.—Head of Apollo r., laureate. Border of dots.

Rev.— $\vee \text{EO} \wedge \text{T} \text{I} \wedge \text{O}$ [N] around lion's head r.; all surrounded by four barley-corns.

At. \uparrow 25 mm. Wt. 16.98 grammes (262.1 grains).
Ford Bequest.

The obverse (which is distinguished from most, though not all, other dies of the series by the interruption of the border by the two front leaves of the wreath) is from the same die as Butler Sale (1911) 72; Bunbury Sale, i. 329; Hirsch, xxxiv. (1914) 159; Delbeke Sale (1907) 47; Egger, 10 xii. 1906, 101, and 7, i. 1908, 38; also B.M.C., No. 29; and doubtless by the same hand as B.M.C., Nos. 30, 31; Benson Sale, 219; O'Hagan Sale, 134; Hirsch, xiv. 180, xvi. 240 and 241 (but not 238, which looks like a copy by an inferior engraver), xxix. 87; Bachelor (Sotheby's 1907) 32; Fenerly Boy (Egger xli) 124; Egger, 26 xi. 1909, 163; Prowe, 372.

The curiously attenuated features of this engraver's model, exaggerated as they are by his failure to model such projecting portions of the face as the nostril and lips, are easily recognizable. I have noticed no other specimen from exactly the same *reverse* die as the present one; but my search does not pretend to have been exhaustive.

SEGESTA.

Obv.—Dog Krimisos standing l. Border of dots.

Rev.— $\Xi \text{E} \text{C} \text{E} \text{T} \text{A} \text{I}$ I A around head of nymph Segesta r., her hair confined by a fillet and

rolled in a chignon: plain border, in incuse circle.

Al. → 23.5 mm. Wt. 7.76 grammes (119.7 grains).
Ford Bequest.

This appears to be from the same dies, obverse as well as reverse, as the didrachm which was in the O'Hagan Collection (167), and passed thence to the collection sold at Sotheby's, 21 iv. 1909 (49).

SYRACUSE.

A few pieces from Mr. Ford's Syracusan series may be mentioned. **PL. I. 7** is remarkable for the minute finish of the tiny head; ⁴ **PL. I. 8**, on the other hand, for the coarse, ropy treatment of the hair.

The bequest also includes a tetradrachm on which the head is apparently from the same die as the "Distinguished Artist" tetradrachm (No. 59), as well as a fine specimen from the same reverse (head) die as Du Chastel 32. The reverse of the decadrachm [**PL. I. 9**] is unfortunately very poor. Its obverse is, I believe, from the same die as the specimen formerly in the Löbbecke Collection (Egger Sale, xxxix, Pl. iii. 98), which shows the signature **EYAINÉ** underneath the bottom dolphin. A specimen formerly in the Bank of England Collection, now in the British Museum, is also from the same obverse die.

SICULO-PUNIC.

Of the Carthaginian coins struck in Sicily the Ford Collection contained four; of these I illustrate the tetradrachm copied from the Euainetos decadrachm, with a pecten-shell in front of the neck [**PL. I. 10**].

⁴ Same dies as Hirsch, xxxiii. 431.

The reverse has the usual horse's head and palm-tree, with the inscription 'Am Machanath (Müller, *Anc. Afr.*, ii, p. 75, No. 14).

The decadrachms of Euainetos with the pecten or the star always, I believe, have the symbol behind the neck, whereas on other decadrachms the symbols (such as a globule, gryphon's head, or Δ) are usually in front of it. The Carthaginian engraver, for some reason, has departed from his model and followed the latter arrangement.

THASOS.

Mr. Ford's trihemiobol of Thasos (0.87 gramme, 13.5 grains), with the usual types of Silenus and amphora, is illustrated in **Pl. I. 11** because of the gemlike beauty of finish of the obverse.

It has been remarked that more than one of the reliefs which decorate the gates of the city of Thasos correspond to the types of the coins; they are, in fact, of a heraldic character, representing the arms of the city. The Heracles as archer is a case in point, as well as the Silenus carrying a kantharos, which is found over one of the gates in a relief of colossal size (2.42 m. high).⁵

PHILIP II.

Obv.—Head of Zeus r. laureate.

Rev.—ΦΙΛΙΠΠΟΥ Horseman l., wearing kausia and cloak, r. hand raised; below, rose on stalk and $\overline{\Gamma}$
 $\overline{\Lambda}$. Plain border.

Di. \uparrow 26.5 mm. Wt. 14.27 grammes (220.3 grains).
[**Pl. I. 12.**] Ford Bequest.

⁵ Ch. Picard in *Monuments Piot.* **xx**, (1913), p. 56.

The same monogram is found, according to Müller, on other coins of his type 8, *viz.* No. 21 (symbol: thunderbolt), No. 171 (symbol: spearhead), No. 179 (symbol: barley-corn), No. 226 (symbol: wreath), No. 294 (no symbol).

Comparison of the material available in the British Museum does not, however, show, as might have been hoped, that any of these different reverses share the same obverse dies.

Two brilliantly preserved gold staters from the Ford Bequest correspond to Müller, Nos. 59, with trident, and 145, with crescent.

ALEXANDER THE GREAT.

Obv.—Head of Athena r., gryphon on helmet.

Rev.—Nike l., holding wreath and stylis; on r. downwards **ΑΛΕΞΑΝΔΡΟΥ**; on l. downwards **ΒΑΣΙΛΕΩΣ**; in field l. **ΛΑ**, r. [9].

N. → 19 mm. Wt. 8.67 grammes (133.8 grains).
[Pl. I. 13.] Presented by Mr. Henry Wallis.

Cp. Müller, *Alex. le Grand*, Nos. 828-31, which are silver and bronze coins showing the mint-mark **ΛΑ** and the same monogram.

Pl. I. 14 and II. 1 show two fine tetradrachms from the Ford Bequest (as Müller, 740 and 198). The former enables us to correct Müller's drawing of the cup which appears as symbol in the field l.

PHILIP III.


A tetradrachm of Philip III from the Ford Bequest may be placed next to Müller, No. 24, to which it adds the monogram **Τ** in the field l. [Pl. II. 2.]

LYSIMACHUS.

The two staters of Lysimachus illustrated in Pl. II. 3 and 4 come from a small hoard of 20 staters, which, by the kindness of Mr. J. P. Lawson, I have been able to examine. The hoard was found in a clay pot "somewhere in Macedonia". Some other coins "of less value" were found with them, but the 20 staters are the whole of the coins of that class which occurred in the hoard. Their interest lies in the fact that they represent two varieties of a single issue, and were struck from only two pairs of dies. They are in excellent condition (one only being injured on the face by the point of some sharp instrument, doubtless the pick which uncovered the pot), and can hardly have seen any circulation at all; the fact that only two pairs of dies are represented also proves that the coins must have come almost, if not quite, straight from the mint to the hoarder's hands.

The two varieties are:

- (1) *Obv.*—The usual head of Alexander r., a very thin lock of hair coming down from the ear on to the neck.

Rev.—Usual type of Athena; in field before the figure, ; in exergue K; on the seat Σ .

5 specimens. Weights 8.62, 8.60, 8.58, 8.51, 8.42 grammes. Die positions \rightarrow (1), \leftarrow (1), \downarrow (3). Struck from a worn obverse die.

- (2) *Obv.*—The usual head of Alexander r., one lock of hair coming straight out to r. under the ear.

Rev.—Similar to preceding, but on the seat Π .

15 specimens. Weights 8.57 (4), 8.55 (3), 8.53 (2), 8.52 (2), 8.49 (2), 8.45, 8.42 grammes. Die positions \leftarrow (4), \rightarrow (4), \uparrow (6), \downarrow (1).

Both varieties seem to be unknown to Müller. Possibly he had a faulty specimen of his No. 504, on which neither the exergual letter nor that on the seat was legible; but it is more probable that these staters belong to the same group as Müller's tetradrachms, Nos. 471-4.

It is noticeable that the obverse die of the first variety had been in use for some time before it was combined with the present reverse die to produce the five coins before us. The material at present available does not enable me to trace this die in connexion with any other reverse; if that is ever possible, we shall be able to reconstitute a small group of early staters of Lysimachus as the product of one mint, by the methods which have been employed so successfully by Mr. Newell for Alexandrine coins.

The letter on the seat on the reverse of the first variety is not a *sigma* (for the form would not be possible at this date), nor yet an imperfect *zeta*. The only possibility remaining is that it is a *digamma*. That would be interesting, as indicating that these letters on the seat are sequence-letters, the *digamma* being 6 and the *pi* 17. But if so, there must have been 10 other reverse dies in use at this mint between the two which are represented in this little hoard, which is improbable if, as seems to be the case, these coins came fresh from the mint to the hoarder.⁶

The Ford Bequest also includes two fine silver tetradrachms of Lysimachus corresponding to Müller, Nos. 543 and 544.

⁶ This point, the freshness of the coins, differentiates the case from that of Messina mentioned above (p. 3, note ²).

Other fine coins from the Ford Bequest are: the well-known Corinthian stater with the drinking Pegasus, from the same dies as B.M.C., *Corinth*, Pl. v. 1; the Argive hemidrachm with Σ on the obverse and NI on the reverse [Pl. II. 5] combining the obverse of B.M.C., *Peloponnesus*, p. 142, No. 72, with the reverse of *ibid.*, p. 141, No. 65 (a combination already known in the smaller denomination, *ibid.*, p. 143, No. 91); the stater of Phaestus [Pl. II. 6] with Talos and his dog, unfortunately much damaged on the surface, but better centred than any other published specimen of this variety;⁷ a fine early drachm of Cnidus,⁸ and the fourth-century hemidrachm with the beautiful head of Aphrodite [Pl. II. 7]⁹ and the magistrate's name [ΑΓ]ΑΘΟΦΑΝ. In style this is much finer than any of the coins illustrated by Head from the period (circ. 300–190 B.C.) to which he assigns this magistrate, and we should probably be right in attributing it to the fourth century. It is not, in fact, far removed in quality from the fine tetradrachm from the Montagu Collection now in the British Museum (B.M.C., *Caria*, p. 272, No. 28 A). The magistrate's name is placed in the exergue, and the ethnic in full in front of the lion's face, an unusual arrangement.

⁷ The reverse is the forepart of a bull (*Svoronos, Crète*, p. 255, No. 6).

⁸ Wt. 6.10 grammes (94.2 grains) ←; from the same dies as B.M.C., Nos. 13, 14, and Ward Collection, 657, 688.

⁹ Wt. 3.23 grammes (49.9 grains) ↓. Cp. B.M.C., *Caria*, p. 91, No. 45. On the new coin there is no trace of a monogram behind the head.

UNCERTAIN OF CARIA.

Obv.—Two dolphins swimming r.

Rev.—Two quadripartite incuse squares, one large, the other small.

A. 22 mm. Wt. 12.35 grammes (190.6 grains).
[Pl. II. 8.] Ford Bequest.

Babelon (*Traité*, II. i, p. 1326, No. 1962) mentions two specimens of this type weighing 12.38 grammes and 12.19 grammes, stating that they were found in one of the Aegean Islands. One of the specimens (the lighter) is that described by Greenwell in *Num. Chron.*, 1890, p. 16;¹⁰ it is possible that the other is the one here published. Regling has justly pointed out¹¹ that these coins have nothing to do with the group of staters which show two dolphins swimming in opposed senses, and that they belong apparently to the Carian coast-district.

THYATEIRA (?).

Obv.—ΑΥΤΚ - - - ΑΔΡΙΑΝΟΣ ΑΝΤΩΝΕΙ
ΝΟCCEB Bust of Pius r., bare-headed, wearing paludamentum.

Rev.—ΘΥΑ (?) - - - Ν ΚΡΑCΣΙΠΕΔΟΣ Zeus standing l., holding phiale and sceptre.

Æ. ↓ 34 mm. Presented by Mr. A. H. Baldwin.

Fabric and style confirm the attribution which is suggested by the remains of the ethnic. The magistrate Crassipes is new to the Greek series.

SIDE.

Obv.—Athena standing l., with shield and spear, holding Nike in r.; in field, l., pomegranate; on r., traces of letters. Border of dots.

¹⁰ Regling, *Sammlung Warren*, No. 1403.

¹¹ *Z. f. N.*, xxv. (1905), p. 42, note 1.

Rev.—Apollo wearing *short chiton* and *chlamys*, standing l. sacrificing with *phiale* over altar; on r., the usual inscription in local script.

AR. ↓ 21.5 mm. Wt. 10.22 grammes (157.7 grains).
[PL. II. 9.] From Sotheby's Sale, 27 xi. 1917, lot 192. Presented by Mr. W. H. Buckler.

This rare variety is distinguished from the ordinary series of fourth-century staters by the fact that Apollo wears a *chiton* instead of a *chlamys* only.

SELEUCUS I.

Obv.—Head of young Heracles r., wearing lion-skin; border of dots.

Rev.—ΒΑΣΙΛΕΩΣ in ex., ΣΕΛΕΥΚΟΥ on r. upwards. Zeus seated l. on throne, holding eagle in r., resting with l. on sceptre. At his feet, horse grazing; in field l. ⚡ and anchor; under throne ♀; border of dots.

AR. ↓ 30 mm. Wt. 17.11 grammes (264.0 grains).
[PL. II. 10.] Presented by Sir Evelyn Grant Duff, K.C.M.G. A particularly brilliant specimen, obtained in Persia.

Another example, with the same monograms and symbols, but from different reverse (and perhaps obverse) dies, is in the Paris Cabinet.¹² The grazing horse used generally to be regarded as the mint-mark of Larissa in Syria; but Imhoof-Blumer pointed out in 1895¹³ that the evidence in favour of this attribution is worthless. The coins with this symbol, whether they bear the name of Alexander the Great, of Seleucus I, of Antiochus I, of Antiochus II, or of Seleucus II, must have been struck farther in the East. The fine preservation of this specimen permits


¹² Babelon, *Rois de Syrie*, Pl. i. 4.

¹³ *Num. Zt.*, 27, p. 16; cp. N. F. 6 (1913), p. 172.

us to observe the Oriental cast of the features which the engraver has given to Zeus, and the peculiar arrangement of three leaves standing up above the god's head. Imhoof-Blumer assigns these coins to Babylon or Seleucia on the Tigris; but it is possible that they may have been struck even farther East.

ALEXANDER I BALA.

Obv.—Head of Alexander I r. diademed; [border of dots].

Rev.—ΑΛΕΞΑΝΔΡΟΥ l., ΒΑΣΙΛΕ[ΩΣ] r. Eagle standing l. on palm-branch; in field r. trident; in field l. ΓΞΡ and monogram ; border of dots.

Ar. † 25 mm. Wt. 14-40 grammes (222.2 grains).
[PL. II. 11.] Ford Bequest.

The obverse is from the same die as B.M.C., No. 5. The monogram is that of the mint Berytus (Laodicea Phoenices).

PARTHIA.

Sir Evelyn Grant Duff has crowned a long series of generous contributions to the Museum with the permission to choose from his collection of Parthian coins, which he acquired chiefly during his stay in Persia as Secretary of Legation, any specimens needed for the National Collection. The selection has been made liberally, and includes a large number of finely preserved drachms, and some rarities. I mention a triobol (?), wt. 1.70 grammes (26.3 grains), of Orodes I (cp. Petrowicz Catalogue, Taf. xi. 23); drachms of Vardanes II (as B.M.C., No. 1), without side-loops to the helmet, and of Volagases IV (as B.M.C., No. 17; bust facing, with small tufts of hair); and particularly

brilliant specimens of the early Archer type and of the coinage of Sinatruces, Phraates III, and Mithradates III.

As curiosities in the matter of standard I note the weights, 4.74 grammes (73.1 grains),¹⁴ of a badly blundered drachm of the time of Mithradates I (as B.M.C., No. 30, but of flatter make), and a drachm of Phraates II (as B.M.C., No. 15) weighing 4.56 grammes (70.4 grains). The Petrowicz Catalogue also records the following high weights: 4.78 (Phriapatius, No. 4); 4.70 (Orodes I, No. 104).

NORTHERN GAUL.

Obv.—Rude head l.; on neck, *upside down*, boar r.

Rev.—Horned horse and driver r.; below boar r.; in field r. rosette.

Pale N. 21 mm. Wt. 3.24 grammes (50 grains).
[Pl. II. 12.]

One of a hoard of ten discovered by some Canadian soldiers near Lens.¹⁵ Three in all have been acquired

¹⁴ If this is not a mere accident, it may be due to the influence of the Indian standard.

¹⁵ I leave this statement of the provenance as it was made to me by the vendor, a Canadian soldier, in June or July 1918. In October 1918 I saw seven other pieces of the same types, said to have been found near Lens—thus confirming the first story. At a later date a similar piece was shown, and described as coming from a find of several thousand not far from Lens. On March 24, 1919, a soldier showed me two similar pieces which he said he found himself in a large pitcher in a gun-pit at Neuve-Église in August 1918; with them were other "black" coins—presumably bronze—which he did not keep. There were only two gold pieces. On the same March 24 I was shown another specimen procured at Rouen by a medical officer, and described as coming from a find of several thousands. The type was almost, if not entirely, unknown in gold before, and I doubt if it can have been turned up in more than one place within so short a period. The above

by the Museum. They are of interest as showing that certain bronze coins attributed to the Aulerci Eburovices have always been illustrated, so far as the obverse is concerned, upside down, owing to the fact that the boar, which is placed upside down *under* the head, is the only recognizable feature.¹⁶

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reports are worth recording to show the difficulty of getting at the truth in such matters.

¹⁶ Cp. Pl. II. 12 with Blanchet, *Traité*, i, p. 323, No. 239; and see my note in a forthcoming part of the *Revue Numismatique*.

II.

THREE RARE SELEUCID COINS AND THEIR PROBLEMS.

[See PLATE III.]

THE problems which cluster thickly around the series of coins issued by the Seleucid kings of Syria are of two kinds. Those of the first kind, which are the more difficult, are concerned with the proper classification of the earlier pieces. At present the data are scanty and confusing. Those of the second, which arise from the coins after Antiochus Epiphanes, are really problems of interpretation; for example, the elucidation of monograms, or attempts to fit the coins in with the literary history of the dynasty, or to test by them the conjectures which have been made to supply the blanks left in that literary history.

The present paper is an endeavour to tackle one or two questions of the latter sort, and from the consideration of a few rare pieces, to throw out some suggestions, which, if they are not satisfactory as final solutions, may at least provoke a discussion which will help to that end.

The first centres around a Phoenician tetradrachm of Alexander Balas.

Its description is as follows:—

Obv.—Bust of Alexander Balas to right with diadem and chlamys, neatly tied on the right shoulder.
Border of dots.

Rev.—ΒΑΣΙΛΕΩΣ [ΑΛΕΞΑΝΔΡΟΥ] Eagle with closed wings, standing to l. on the ram of a vessel; a palm-branch behind its right shoulder. In field r., date ΕΞΡ and below Ϙ; in field l., a club, surmounted by the monogram of Tyre Ϙ. All within a border of dots.

At. Weight, 221.5 grains. Size, mm. 27. Axis, †.
Phoenician tetradrachm. [Pl. III. 1.]

The tetradrachm is naturally of the ordinary Phoenician and not the Attic standard of weight.

Its special interest lies in the date. Unfortunately the coin, although in other respects excellently preserved, is not well centred, and there is a weak spot in the striking of the reverse, or perhaps rather part of the surface has flaked off, as is so often the case with the Phoenician pieces of Seleucid kings, carrying with it the *epidermis*, so to speak, of the letters ΑΕ in the legend and the last numeral of the date. Still there can be no manner of doubt as to the date, which reads ΕΞΡ, the final Ϙ obviously standing for Ρ.

A similar specimen at Paris was published in the *Revue Numismatique*, 1910, pp. 134-5, No. 499, with the monogram ϘΒ between the eagle's legs, and Mionnet, *Supplément*, viii. 42, No. 219, describes another; but the coin is lacking in most of the public collections and has not appeared in a sale catalogue for many years.

The date ΕΞΡ is 165 of the Seleucid Era and corresponds to 148-147 B.C.

The comparative rarity of this date is the more surprising, because there is a very complete series of these Phoenician tetradrachms of the Tyrian mint throughout the whole reign of Balas from ΒΞΡ A.S., i.e. 151 B.C., until ΙΞΡ A.S., i.e. 146 B.C., when Deme-

trius II succeeded to the throne of his defeated and murdered predecessor, and in turn continued them.

There appear to have been three distinct regular issues every year, characterized by the letter or monograms **M** or **Σ**, **ΞΒ** or more carelessly **ZB**, and **Ϝ** or **HP**. In the case of Balas these appear in the field 1. below the date, and in the case of his successors usually between the eagle's legs.

The rarity of the date is the more remarkable because I possess a drachm of this year [PL III. 2], which appears to be one of the only two examples of drachms under Alexander from Tyre, the other being of the following year with the monogram **Ϝ** (*vide* Fenerley Bey Sale Catalogue, Nov., 1912; Egger, Vienna, No. 705), while Babelon (895)² publishes a didrachm of this year with monogram **ΞΒ**.

The year **ΕΞΡ** is almost as rare in the Sidon issues, and as far as I have been able to discover is represented solely by a tetradrachm in the Hunter Catalogue (iii, p. 65, No. 60) and a didrachm in the Jameson Collection (No. 1712).³

¹ Dr. Macdonald has published a similar drachm to mine in the *Zeitschrift für Numismatik*, vol. xxix, pp. 96, 97, No. 19, which is illustrated on Pl. iv. 18. In his description he says that the drachm shows under the date, on the reverse, the letters **ΑΣ**, and has an A between the eagle's legs. I have, of course, never seen the original piece, but only the illustration, and from a careful comparison with my coin I venture to suggest that the A between the eagle's legs is the top outline of the ram. Since this paper has been in the press I have obtained a second drachm of **ϜΡΡ** with the monogram **ΞΒ**; so that the Tyrian mint was apparently in full activity in the next year.


² References to Babelon throughout this paper always indicate his *Rois de Syrie*.

³ The Hermitage possesses a copper coin struck at Ascalon (?), with date **ΛΕΞΡ**, *Journ. Intern.* xiii, p. 158, No. 492.

It is fair then to conclude that there was something abnormal happening in the Phœnician mints, and confirmation of this may perhaps be found in the splendid tetradrachm of Attic weight, which Balas struck with the reverse Zeus seated, holding a thunderbolt instead of a Niké in his right hand, and having the same date **ΕΞΡ** and **ΣΙΔΩ** in the exergue (*B. M. C.*, Pl. xv. 6, and Egger, Vienna Sale Catalogue, Nov., 1913, No. 756).

Is there anything to account for a dislocation in the Phœnician mints during the year **ΕΞΡ**, with a consequent short issue and corresponding rarity of the coins of this date?

A reasonable clue seems to lie in the action of the Egyptian king, Ptolemy Philometor.

Alexander Balas, it will be remembered, owed his throne to Ptolemy's assistance as later he lost it through his opposition. Ptolemy had regarded the ambitions of Demetrius I as a menace to his safety in Egypt, and had put forward Balas as the reputed son of Epiphanes to dispute his claim. Once Balas was on the throne and Demetrius dead, Ptolemy had sought to bind his protégé more closely to his interests by giving him his daughter Cleopatra as wife. Alexander apparently fixed his court at Ptolemais, where he also established a mint (*cf. Bab.*, 797, and *B. M. C.*, p. 52, No. 8, etc.), although the only issues were of Attic weight, and no money of Phœnician type and weight comes from Ptolemais until the second reign of Demetrius II, when a tetradrachm bearing the date **ΕΠΡ**, *i.e.* 185 A.S. or 128-127 B.C., with the monogram  usually interpreted as Ptolemais, is so assigned by Babelon (No. 1194).

On the other hand, as Babelon (p. cxxvi) points out, Ptolemy himself issued a tetradrachm at Ptolemais with the eagle reverse and of Phoenician weight in **AΞP**, i.e. 161 A.S. or 152-151 B.C., the year before Balas' marriage to Cleopatra, and the latter's issues of similar coins from the mints of Tyre, Sidon, and Berytus simply carried on what Ptolemy had done.

Ptolemy, however, did not find his son-in-law the success he had hoped. Alexander's life of folly and excess soon raised up a rival in the person of Demetrius II, the elder son of Demetrius I, a lad of about fourteen years of age, who, in 148-147 B.C., was brought from Asia Minor, where he was being educated, to displace Alexander.

Alexander was for the moment saved by the help of the Jews, but Ptolemy had no intention of allowing affairs to be settled in Syria apart from his approval and permission. With fleet and army he promptly crossed to Palestine, and in the year 148-147 placed garrisons in the Phoenician cities to secure his interests.


I had come to the conclusion that this intervention of Ptolemy accounted for the dislocation of the Phoenician mints in **ΕΞP**, when Professor Oman kindly reminded me of a tetradrachm which strongly confirms my argument.

In 148 B.C. Ptolemy struck a tetradrachm at Ptolemais. Two specimens are described in *Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων*, p. 224, No. 1486.

The obverse bears a well-executed head of Ptolemy Philometor and the reverse the usual eagle with corn-stalk over its right shoulder.

The inscription is :

ΠΤΟΛΕΜΑΙΟΥ }
ΦΙΛΟΜΗΤΡΟΣ } l. ΘΕΟΥ r.

In the field l. is  and between the feet and tail of the eagle is $\Gamma \Lambda \Gamma$ -A, which Svoronos interprets as *Αιγύπτου* $\Gamma \Lambda \Gamma$ = year 33 = 148 B.C. (*vide* Pl. xlviii. 19, 20).

It was only then at the close of the year, when Ptolemy had seen the trouble through, that Alexander was allowed to resume his authority. The issue for **ΕΞΡ** must have been unusually short, and the rarity of this date follows, whether the money was struck before the intervention of Ptolemy at the beginning of the year or after it at the end. In either case the mint seems to have ceased working for the greater part of **ΕΞΡ**.

The second problem has the merit of being highly disputable, and arises from a hitherto unpublished tetradrachm of Antiochus VIII, of which the description is as follows :—

Obv.—Diademed head of Antiochus to right. Border of dots.

Rev.—**ΒΑΣΙΛΕΩΣ** (r.). **ΑΝΤΙΟΧΟΥ** (l.). Eagle standing on thunderbolt to l. ; in field r. **ϞΡΡ**. in field l. **Ϛ**. Border of dots.

At. Weight, 200 grains ; size, 27.5 mm. ; axis \uparrow . Phoenician Tetradrachm. [Pl. III. 3.]

The problem is the interpretation of the monogram **Ϛ**.

It occurs with some frequency on tetradrachms both of Attic and Phoenician weights from Cleopatra Thea to Antiochus IX (Cyzicenus), as the following table shows:

	Attic weight. (rev. Cornucopiae)	Phoenician weight. (rev. Eagle)
Cleopatra Thea	ⲓⲠⲠ B.M.C., 85/1 (rev. Zeus)	
Cleopatra and Antiochus VIII	ⲐⲠⲠ { My collection [Pl. III. 4.] Hunter, Cat., iii, 96/1 A9P Bab., 1351, under throne Λ / B9P Bab., 1359, under throne Λ / B9P B.M.C., 86/6	ⲓⲠⲠ Bab., 1336 H11P Bab., 1338 B9P Bab., 1357 under Σ $\overline{\text{m}}$ B9P { Bab., 1358 B.M.C., 85/1 59P My collection B.M.C., 91/2 [Pl. III. 5.] Bab., 1457.
Antiochus VIII	—	
Antiochus IX	—	ⲕⲁⲑ [Pl. III. 5.] Bab., 1457.

In addition to the above dated tetradrachms the *B.M.C.* has a chalcous of Cleopatra and Antiochus, 86/9, figured Pl. xxiii. 6, with Σ and the date ⲐⲠⲠ, of which I have a specimen.

Two suggestions have been offered as to the meaning of the monogram.

Gardner, in the *B.M.C.* of the Seleucid Kings of Syria, following de Saulcy, proposed to read it as Sycamina, but Babelon has sufficiently disposed of that. In turn, on p. clxxvii of his *Introduction*, although the passage is rather confused, the latter appears to think it stands for $\Lambda\Sigma\Upsilon$, i.e. *δόρυλον*, at least when it is combined with $\overset{\text{A}}{\text{PE}}$, and this opinion has been shared by others, despite its vagueness. Of course there are many towns which might lay claim to the epithet. It hardly seems sound, however, to suppose that so indefinite a monogram should be placed by itself as a definite mark upon a coin, especially as in most cases it stands alone.




If we dismiss such an interpretation, it remains that the monogram indicates either a person or a place, unless it is a mark of value, which is extremely unlikely.

The fact that it occurs over the space of a comparatively few years, *viz.* from 126 a.c. to 113 or 112 b.c. at the outside, would lend colour to the idea that it is the name of some person, magistrate, or monetary official, and then the puzzle would remain insoluble, but the further fact that it occurs in the reigns of both Antiochus VIII and Antiochus IX, who were bitterly hostile to one another (much as the monogram Σ with the forepart of a horse and three arrows in the hand of Apollo and a circular legend occurs on a series of coins of the earlier Seleucids), seems fatal to the theory that it represents the name of a person.

I am therefore driven to conclude that it is the name of some mint place; and this is confirmed by the unusual type of the reverse.

In order to appreciate this point more fully I suggest that the coin should be connected with coins of a similar type, though presenting different monograms.


Of these I would set out as typical the following: -

King	Mark left	Mark right	
Tryphon		LΔ	Bab., 1057
Demetrius II		ΕΠΡ	Bab., 1194
Antiochus VIII	AP ΔP	ΙΡΡ ΗΡΡ	Bab., 1391 Bab., 1396
Antiochus IX	A Δ	LΔΕ LΒΣ	Bab., 1405 Bab., 1458
	 divided by an ear of barley	LΣΣ	B.M.C., 91/4

* *Vide* Imhoof-Blumer, "Zur Münzkunde der Seleukiden", *Numismatische Zeitschrift*, vi. (lxvi), 1913, Tafel i.

With the ⲥ tetradrachms these all present an eagle on a thunder-bolt without a palm or corn-stalk over the shoulder. They are at least first cousins in type, and curiously are all below average weight for Phoenician tetradrachms of such ascertained mints as Tyre, Sidon, or Berytus.

The study of the monograms which they present is interesting.

There is a striking similarity between the monogram upon the coin of Tryphon and the first upon that of Demetrius II, though I do not venture to make any guess at it: the second monogram on the Demetrius piece () is obviously Ptolemais.

The three monograms on the pieces of Antiochus VIII seem to be differently executed attempts at the same, which would then be in its full form on the second, ΔΡ.

The first of Antiochus IX might also be identical, but the last stands by itself, though the presence of the ear of barley should be noted.

The coin of Tryphon suggests a further clue. There are coins of his struck at Ptolemais and Ascalon, the attribution of which is indubitable. As this piece differs from the true Phoenician mint type by the absence of the corn-stalk or the palm, the conclusion is irresistible that it belongs to some Palestinian mint.

Why should not all the rest be Palestinian also? There is no difficulty about the Demetrius coin. Ptolemais, as I said, claims it, and even if the other monogram is the name of some official it does not matter.

On the same lines I suggest that all these pieces are Palestinian. The ear of barley is a symbol quite usual in Palestinian coin-types, *e.g.* of Sepphoris,

Neapolis, or Anthedon—and would be entirely consonant with a Palestinian origin.

That brings me back to the Σ pieces.

On the above argument they ought to be Palestinian.

Σ has always so far been read as if the upper element were upsilon. There is no reason why it should not be kappa.

The tempting thing then was to see in it not $\Lambda\Sigma Y$ as Babelon, but $\Lambda\Sigma K$, the obvious monogram of Ascalon.

This, I think, can hardly be sustained for two reasons. There is a series of Ascalon coins of Cleopatra and Antiochus, of Antiochus VIII, and of Antiochus IX. All of them present the eagle with the palm-branch. Besides, it is really difficult to find the element of a true alpha in Σ . That would require Ξ .

The alternative seemed then to be ΣKY , and that is what I propose to make of it, suggesting Scythopolis, the ancient Bethshan, as the place of minting.

In itself this is entirely appropriate. Scythopolis was the key to Eastern Palestine. With the loss of it to the Jews in 107 B.C. the Seleucid power declined for ever in the Holy Land. The attribution only remains to be tested by the ascertained facts.

Perhaps I may here be allowed a short digression to point out that this method of isolating mints as it were by peculiarities of type—here, of course, the eagle without palm or corn-stalk—has already been employed with fruitful results⁵ by Dr. Macdonald in dealing with the tetradrachms of the earlier Antiochi, distinguished by a wing in the diadem. Thus fixing

⁵ Vide "Early Seleucid Portraits", *Journal of Hellenic Studies*, vol. xxiii, 1903.

this type as a peculiarity of the mint of Alexandria Troas, he was able to present a sequence of portraits of different kings, and wiped out the error, into which it was so easy to fall, that the winged diadem was the particular mark of Antiochus II or Antiochus Hierax.

Scythopolis, then, as the mint place of the ₤ tetradrachms is entirely appropriate. It was bound to be a place of importance for the Seleucids, if they were to retain any hold at all over the country; and inevitably with the loss of it to John Hyrcanus and the Jews in 107 B.C. their power declined in the Holy Land.

The attribution—so theoretically simple—remains then, as I said, to be tested by the ascertained facts of the extraordinarily tangled history of the latter years of the second century B.C. in order to prove or disprove an interpretation which I submit with confidence is attractive.

John Hyrcanus, the son of the heroic Simon Maccabaeus, had returned to Judaea after the sordid murder of his father, some time before the spring of 129 B.C. The news of the death of Antiochus VII (Sidetes) in Parthia encouraged him to push the Jewish frontiers outwards.

He moved across the Jordan and southwards in Idumaea, but his success in the north did not reach beyond Mount Gerizim. The Seleucids therefore continued to hold Phoenicia and Palestine, with Ptolemais on the coast and Scythopolis on the east as their strategic centres, a fact which I believe to be illustrated by the Palestinian tetradrachm (Bab., 1357), which combines the monograms ₤ and Ⓜ. This would

fit well in with the issue of the Σ type in $\mathbf{\Gamma\Pi P}$, 126-125 B.C., and $\mathbf{H\Pi P}$, 125-124 B.C.

Then a gap in the dates might well come, for Alexander Zebina, after defeating Demetrius II near Damascus in 125 B.C., certainly held some mastery of Palestine and struck a drachm at Ascalon of the true Phoenician type in $\mathbf{\Theta\Pi P}$, 124-123 B.C. (*B. M. C.*, 81/1). This mastery is further confirmed by the four tetradrachms of Attic weight with the *rev.* Zeus seated, upon two of which occurs the monogram Σ , dated $\mathbf{\Theta\Pi P}$, $\mathbf{A\Phi P}$, $\mathbf{B\Phi P}$, struck by Cleopatra and Antiochus VIII. This would seem to show that their hold upon Palestine had been weakened by the campaigns of Alexander, though doubtless his alliance with Ptolemy VIII (Physcon), who had really put him upon the Seleucid throne, may account for the Ascalon drachm.

However that may be, Ptolemy became reconciled with Antiochus and gave him his daughter Tryphaena to wife. This alliance proved fatal to Alexander, who retired to Antioch after a defeat, and soon was delivered up to Antiochus, who forced him to take poison, in 123-122 B.C.

Coele-Syria was thus freed from the influence of Alexander and we might expect the Σ issue to begin once more, if it is referable to a Palestinian mint.

That is exactly what did take place.

It reappears in $\mathbf{B\Phi P}$ 121-120 B.C., and, as evidenced by the tetradrachm I am discussing, in $\mathbf{\varsigma\Phi P}$, 117-116 B.C., and of course possibly in the interval.

Antiochus IX then came upon the scene and was particularly successful in Palestine. Grypus was driven out and retired to Aspendus in 113-112 B.C. The next issue of the Σ type occurs during his exile.

Antiochus IX struck in ΛΑΣ, 112-111 B.C., when Grypus^a returned to continue the feud with his brother. The natural outcome was the forward Jewish move, and in 107-106 B.C. Scythopolis fell. There are no later Ξ type issued.

One more point.

A glance at the table of cognate tetradrachms in no way upsets the above attempt to fit in the dates with the history; and the fact that the latest was issued in ΞΣ, 107-106 B.C., and therefore presumably before the fall of Scythopolis and the loss of Palestine to the Seleucids, tends to corroborate the suggestion that these tetradrachms with an eagle minus palm-branch or corn-stalk are Palestinian and helps to make out a case for the proper interpretation of Ξ being Scythopolis.

The last problem arises from a tetradrachm of Philip Philadelphus with the new date ΞΚ.

The description is as follows:—

Obv.—Diademed head of Philip with formal curls to right. Bead and reel border.

Rev.—[Β]ΑΣΙΛΕ[ΩΣ] ΦΙΛΙΠΠΟ[Υ] r. downwards; [Ε]ΠΙΦΑΝΟΥ[Σ] [ΦΙΛΑΔΕΛΦΟΥ] l. downwards. Laureate Zeus, naked to waist, sits on a high-backed throne to l., with his chlamys in wide folds over his knees, his r. leg drawn back. He holds in his r. hand a wingless Nikē crowning him and in his l. a long sceptre.

Beneath the throne is Δ, in front of his legs Ξ; in the exergue ΞΚ.

^a As an interesting relic of that exile I suggest that the Alexander type of tetradrachm (Müller, 1203-1208) of Aspendus (ΑC) variously dated, as ΙΑ, and counterstruck with an anchor was authorized by Grypus [Pl. III. 6, 7]. Cp. the counter-mark on the tetradrachms of Side [Pl. III. 8].

All within a wreath of laurel leaves and berries, tied below and meeting above in a thunderbolt with Φ on the l.

(The smallness of the flan leaves only the faintest trace of the wreath.)

R. Weight, 229.5 grains; size, 26 mm.; axis \uparrow .
Attic tetradrachm. [Pl. III. 9.]

The special interest of the coin lies in the new date $\zeta\kappa$.

It forms part of a series which exhibits the following dates:—

$\Theta\iota$ = 19, B.M.C., 100/6; Bab., 1541.

K = 20, Bab., 1542.

BK = 22, Bab., 1544.

$K\Delta$ = 24, Bab., 1545.

ζK = 26, My collection.

ZK = 27, " [Pl. III. 11.]

The six all present the same monograms— $\tilde{\chi}$ on the reverse before the knees of Zeus and Δ beneath the throne.

Unquestionably the monogram $\tilde{\chi}$ stands for Antioch.

All have the same small flan, which plays havoc with the legend, and the head of Philip is flat and uninspired with crude formal hair, while the Zeus on the reverse is large and coarsely executed and the legends are composed of lettering which is square and unusually tall.

I possess an undated tetradrachm, very similar in style, with the same monogram of Antioch but with Δ beneath the throne and Δ within a winged thunderbolt in the exergue, and most remarkable of all Niké presents Zeus with a *palm* instead of a wreath.⁷

⁷ Miounet (*Supp.*, viii. 387) after Sestini gives the dates $\Delta K \Sigma$, $Z K \Sigma$, $\Theta K \Sigma$. These, if correct, would be respectively B.C. 92/1, 87/86, 84/83, assigning these to the ordinary Seleucid era; but

The only other known date on a tetradrachm of Philip is KA (Bab., 1543), of which happily I possess an excellent specimen [Pl. III. 10].⁵

This, however, has the monogram $\text{K}\xi$ and appears to have been struck upon a larger flan. The piece described by Babelon, although holed, is the heaviest of the series, and mine, on a large oval flan, weighs 241 grains. Details of treatment, *e.g.* in the wreath, suggest that although the style was modelled upon the others in the series it was executed by a different artist.

What then is the significance of this intermittent series?

Is it merely the accident of time and chance that we do not possess the other dates or, considering the quantities of Philip's coins which have come down to us, is it more likely that they were never issued?

I will try and set out the reasons which incline me to believe that the series was intermittent.

Assuming that Philip³ adopted the new Seleucid era, which began when Grypus returned from exile in Aspendus, 111/110 B.C., there does seem to be good ground for the intermittent series in the fluctuations of the fortunes of Philip, before he passed into the obscurity which so decently veils the pitiable collapse of the Seleucids, and on the other hand the coins do help us to determine with some creditable accuracy

no specimens bearing these dates are known to-day and Sestini's readings are not above suspicion. If he imagined the Σ , then perhaps what should be read is AK, ZK, and Θ I, because Θ K would be too late for Philip.

⁵ *Vide Num. Chron.*, 4th series, vol. vii, Pl. x. 7.

³ *Vide Head, Hist. Num.*, New Edition, 1911, p. 771 (foot).

the chronology of the confusing events in the last turbulent years of the quarrelsome sons of Grypus.

The year $\Theta\iota$ (94/93 a.c.) would see Antioch in the power of Philip after his twin brother Antiochus XI¹⁰ was drowned in the Orontes, while Antiochus X, Eusebes, and Demetrius III remained his rivals to the throne. This would make the issue of the first coin quite natural, and as in the next year, although Eusebes was holding out, he was in alliance with Demetrius and undisturbed at Antioch, because Demetrius had chosen Damascus for his capital, the coin dated κ (93/92 a.c.) obviously follows.

Immediately after this Demetrius obtained possession of Antioch, although he had not as yet broken with Philip, and the ascendancy of Demetrius at Antioch might account for the tetradrachm dated $\kappa\alpha$ (92/91 a.c.) with the monogram P , which might possibly be Carne¹¹ or more probably a subsidiary mint of Antioch.

It was not in the nature of things that brotherly love should long continue among the Seleucids, and Philip appears to have asserted his old rights by the issue of the Antioch tetradrachm, dated $\beta\kappa$ (91/90 a.c.).

Whether this was the *casus belli*, or whether for other reasons Demetrius resented Philip's authority, at all events in the next year war broke out between the two, and found Philip at Beroea. Demetrius

¹⁰ The coins of Antiochus XI (Macdonald in *Z. f. N.* xxix. (1912), Pl. v. 19, from Berlin Collection—a tetradrachm—and the chalcons, Bab., 1539) are undated.

¹¹ Professor Oman suggests Larissa as a possibility.

marched to besiege him. The absence of an Antioch tetradrachm for ΚΓ, 90/89 B.C., is therefore easily explained. None has come to light so far. Philip's ally, Strato of Beroea, called Mithradates of Parthia to their help. The tables were immediately turned. Demetrius was defeated and taken prisoner to Parthia, while Philip became once more master of Antioch and could issue the tetradrachm ΚΔ (89/88 B.C.).

But his troubles were not yet ended. There still remained his youngest brother, Antiochus XII, who dubbed himself with grandiloquent titles, Dionysos, Epiphanes, Philopator, Kallinikos. He had established himself at Damascus, and Philip regarded him as a dangerous rival.

It may only be a coincidence, but it is a curious one, that a tetradrachm exists at Dresden of Antiochus XII, dated ΑΣΚΣ,¹² which Bevan,¹³ following a slip on the part of Babelon, says is 227. It is, of course, 226 and corresponds with the missing year of Philip's series ΚΕ, or 87/86 B.C.

Philip unsuccessfully attacked Damascus in the absence of Antiochus on an expedition against the Nabataean Arabs, but soon afterwards Antiochus was killed upon a second expedition.

Philip was left in possession.

It must have been then that he struck the tetradrachm dated ΣΚ—i.e. 87/86 B.C.—which has served as an excuse for this disquisition.

¹² This is how the coin is illustrated in Bab., p. cxxiii. There is difficulty about the Α. It should be Λ if it is the sign for *ἱερός*; but possibly it is incorrectly drawn from the original.

¹³ Bevan, *House of Seleucus*, vol. ii, p. 261, n. 3.

34 THREE SELEUCID COINS AND THEIR PROBLEMS.

The date **ZK**, *i.e.* 86/85 B.C., which I have acquired since I first wrote this paper, would carry on the series, and possibly **KH**, *i.e.* 85/84 B.C., was also issued before Tigranes of Armenia settled the family bickerings of the Seleucid house for ever.

EDGAR ROGERS.

III.

THE LAST ISSUES OF GOLD AND SILVER FROM THE SENATORIAL MINT OF ROME.

THE exact dating of the series of rare aurei and denarii which, while invariably referring to Augustus as Emperor, bear the names of fifteen different moneyers, has long been a minor numismatic crux. The various systems proposed are set out in tabular form by Laffranchi in his article on "La Monetazione di Augusto, Zecca di Roma" (*Riv. Ital.*, 1914, pp. 307 ff.) It will be sufficient for my present purpose to remind my readers that the dates assigned to this coinage have generally been 20-16 or ^a15 B.C.; though Grueber, in his *Catalogue of Coins of the Roman Republic*, following the arrangement of Count de Salis, has assigned them to the years 16, 14, 12, 8, and 6 B.C.¹ My object here is to submit, and, if possible, establish by proof, a system differing materially from any yet suggested. I will first set out in tabular form the arrangement I propose, with justificatory notes attached, and will then deal a little more fully with the general question involved.

¹ This arrangement, based mainly on grounds of style, appears excellent, as far as the grouping of the moneyers is concerned: the dating is rendered wellnigh impossible by the historical evidence quoted below.

I

DATE	MONEYERS	NOTES
17 B.C.	(1) P. Petronius Turpilianus (2) L. Aquillius Florus (3) M. Durmius	Undoubtedly colleagues, owing to similarity of types and style. Refer to restoration of Parthian standards and submission of Armenia (20 B.C.).
	Durmius uses as obverse a head of Honos, Aquillius a head of Virtus. These two divinities were worshipped together in Rome, and in 17 B.C. Augustus altered the date of a festival held in their honour (Dio Cassius, liv. 18. 2).	

II

16 B.C.	(4) L. Vinicius	? Consul 5 B.C. (the restoration of the name in the Fasti is not certain).
	(5) C. Antistius Vetus	Consul 6 B.C.
	(6) L. Mescinius Rufus	

The date of this college is fixed by the imperial titles, **TR. P. VII** and **TR. P. VIII**, given on the coins. There are allusions to the Secular Games of 17 B.C., and the departure of Augustus for Gaul 16 B.C.

III

15 B.C.	(7) M. Sanquinus	Refers to Secular Games, 17 B.C.
	(8) P. Licinius Stolo	
	(9) Q. Rustius (?)	Refers to FOR-

TVNA REDUX—perhaps alluding to the departure of Augustus from Rome, 16 B.C.

Sanquinus and Stolo were certainly colleagues—both striking brass as well as gold and silver. Q. Rustius is a doubtful third in the college.

IV

14 B.C.	(10) Cossus Cornelius Lentulus	Consul 1 B.C.
	(11) L. Cornelius Lentulus	Consul 3 B.C.
	(12) L. Caninius Gallus	Consul 2 B.C.

C. Antistius Vetus, IIIvir a.a.a. f.f. in 16 B.C., was consul in 6 B.C.; L. Vinicius, IIIvir in 16 B.C., probably consul in 5 B.C. It is a practical certainty then that these three

moneymen (10-12), who only reached the consulship several years later, must have held office at the mint later and not earlier than the moneymen of 16 B.C. This clear historical indication—fundamental for dating the series—has been strangely neglected. Cossus Cornelius Lentulus shows us Agrippa wearing a mural crown, while Gallus shows a Gallic (not a Parthian) warrior kneeling and offering a standard.

L. Cornelius Lentulus is linked up to (10) and (12)

- (i) by the similarity of his coins,
- (ii) by the date of his consulship, compared with theirs.

V

- | | | |
|------------|---|----------------------------------------------------------------------------------------------------|
| 13
B.C. | { | (13) C. Marius. Refers to Agrippa, Julia his wife, and their sons Caius and Lucius Caesar. |
| | | (14) C. Sulpicius Platorinus. Refers to Agrippa as colleague of Augustus in the tribunician power. |
| | | (15) C. Antistius Reginus |

This college is obviously linked up by its types to the preceding one. C. Antistius Reginus, though he has no contemporary historical allusions on his coins, strikes in a style so similar to (13) and (14) that he may safely be placed with them. The reference on the coins of this and the preceding college to Agrippa and his family harmonizes perfectly with the dates here assigned. Agrippa, till his death in 12 B.C., remained in the highest favour with Augustus, and in 13 B.C. received, with him, a renewal of the tribunician power for five years.

The date of college II is certain; those of colleges IV and V, practically speaking, certain too—they must be after 16 B.C. (see above) and before 12 B.C. (date of Agrippa's death). The only doubt is about colleges I and III. College I might be assigned to any of the years 20, 19, 18, or 17 B.C. I assign it to the year 17 B.C., because

(i) the reference to important events of 20 B.C. on coins of 17 B.C. need not surprise us, since no events of great importance fell in the intervening years 19 and 18 B.C.;²

(ii) the references to **HONOS** and **VIRTVS** distinctly indicate 17 B.C.;

(iii) if, as is perhaps *a priori* probable, our series of coins was struck in successive years, we must assign these coins to 17 B.C., or else leave a gap between them and those of the next college. If we assign college III to 17 B.C.—in itself a possible arrangement—we leave the year 15 B.C. blank.

College III is therefore assigned to 15 B.C. rather than 17 B.C. The asses of Sanquinus and Stolo, giving Augustus the title of **PONT. MAX.**, a title only received by him in 12 B.C., are not genuine contemporary coins.³

The only find which throws light on our problem is that of Terranova Pausania (Grueber, *op. cit.*, vol. ii, p. 48). The latest dated coin of the hoard was a denarius of Lugdunum, *obv.* Head of Augustus bare, r., **AVGVSTVS DIVI F.**; *rev.* **IMP.X.** Bull butting l.; date c. 14–12 B.C. With it were found coins of P. Petronius Turpiliannus, L. Vinicius and L. Mescinius Rufus, Q. Rustius, Cossus Cornelius Lentulus, and L. Caninius Gallus. This evidence quite supports the date 13 B.C. as a lower limit for this coinage.

One other point deserves attention. The first nine moneyers in my arrangement use other obverses, as

² Cp. reference to recovery of Parthian standards on *rev.* of aureus of Augustus with *obv.* **S.P.Q.R. IMP. CAESARI AVG. COS. XI TR. POT. VI.** (18–17 B.C.).

³ Cp. Willers, *Geschichte der römischen Kupferprägung*, pp. 197 ff.

well as the head of Augustus, the last six the head of Augustus only. This is hardly likely to be the result of chance; it looks as if Augustus insisted on this point as a preliminary to stopping the issue entirely.

It will be seen that I have assumed that our fifteen moneyers represent five separate colleges of three, each moneyer striking during his year of office and each holding office for one year only. It must be admitted, I think, as a possibility—

(1) that of the three moneyers of any year, only one or two might, under special conditions, strike coins; ⁴

(2) that moneyers may have held office for more than one year. ⁵

But in this particular case the composition of colleges I and II is certain, that of colleges IV and V very nearly certain, while in college III the only doubt is whether Q. Rustius is the third of the triumvirate. Laffranchi's surmise, though reasonable in itself, seems to have little or no bearing on our case. The second point raised by him is harder to answer. The coins issued by college I are so numerous, that it really appears as though they might extend beyond a single year. But in the absence of definite evidence showing that moneyers continued in office beyond the annual term, it seems wiser not to build on the possibility.

The sequence of the moneyers of Augustus in brass and copper has been very carefully investigated by

⁴ See Laffranchi, *op. cit.*, p. 310.

⁵ Laffranchi assumes this in his arrangement, and the possibility is borne out by the evidence quoted in Mommsen, *Röm. Staatsrecht*, Bd. ii, p. 579, n. 3, which shows that the same man would sometimes successively hold two or three of the offices composing the vigintisexvirate.

Willers,⁶ and I think we may accept his arrangement, in its main features, as sound. According to him, the issues started in 23 B.C. and continued till 21 B.C., re-started in 15 B.C. for that year only, then began again in 12 B.C. and continued till about 7 B.C.⁷

It will be seen that this series, fitting on to those of gold and silver which we have been discussing, forms a nearly consecutive series from 23-7 B.C., with only three years, 20-18 B.C., blank. It has been suggested that the moneyers of gold and silver were a different class of official from the moneyers of brass and copper. There is no evidence for this view and definite evidence against it. The title of the mint-master is definitely and clearly "*Illvir aere argento auro flando feriundo*"; of our triumvirs M. Sanquinius and P. Licinius Stolo actually struck in brass, as well as in gold and silver, and the fact that the other colleges struck either gold and silver or brass and copper can be fully accounted for on grounds of administrative convenience.

What is the meaning of this sudden revival of the issue of gold and silver by the senatorial mint? A full discussion of this question would carry me beyond the scope of this article, and I must reserve it for a future paper, dealing in a more general way with the inauguration of the Imperial Coinage. For the present, I will briefly indicate my views, without attempting a full proof.

The senatorial mint, we know, had ceased to issue gold and silver in about 36 B.C. From that time on till c. 17 B.C., such gold and silver as was issued was

⁶ *Op. cit.*, p. 129 ff.

⁷ Lafranchi's modification of the arrangement seems unsuccessful; he appears not to appreciate Willers's historical argument.

entirely provincial—it belonged to what Mommsen has termed the “military coinage”. After his final triumph over Antony, Augustus issued gold and silver in Greece, in Asia Minor, in Egypt, in Gaul (?), and in Spain.⁸ We may assume that these coinages were valid for the whole Empire, though, no doubt, the particular local issues directly served local uses. But no similar series of imperial brass was struck. Since the senatorial mint had struck no brass since c. 82 B.C., there must have been an acute need of fresh coinage, and we need feel no surprise at the reopening of that mint to strike brass in 23 A.C. The first coins issued show the moneyers’ names only, all subsequent ones the letters S.C. as well. Probably the issue was instigated in the first place by the Emperor. This would naturally raise the whole question of the token coinage, and Augustus, probably not entirely uninfluenced by public opinion, definitely abjured all direct control over it and placed it in the hands of the Senate. From this date on, brass and copper were struck at intervals, in pursuance of the decrees of the Senate, to meet requirements. The disappearance of the moneyers’ names (c. 7 B.C.) was probably due to the fact that this city coinage was now designed to be a general currency for the Empire, and that, for this purpose, the mention of petty magistrates at Rome seemed superfluous—the authority of the Senate, attested by the invariable S.C., being now the one vital point.⁹

⁸ Cp. Laffranchi’s very interesting series of articles on “La Monetazione di Augusto” in *Riv. Ital.* 1912 and following years. Independent research, commenced in 1912, has led me to similar conclusions.

⁹ I must admit that Willers has shown reason to doubt whether this coinage extended, in its first stages at any rate, beyond Italy. However, I let my suggestion stand for what it is worth.

When the senatorial mint had once reopened to strike brass and copper, conservatives must have asked themselves, Why should it not also issue gold and silver?

Augustus had not definitely expressed a decision on the subject of this coinage; and if Spain, Greece, and Asia were all to have their special issues of coins, why should not Augustus allow the Roman mint to issue gold and silver, with appropriate reference to himself, in the form of obverse portrait or otherwise? Why, in fact, should not the mint issue gold and silver, as it had been issuing them before 36 B.C.? Augustus, not having yet arrived at his definite settlement of the question, granted the concession. But he can never have intended to allow it to become permanent. In 14 B.C. arrangements, which must have been some long time in preparing, were complete. Lugdunum, the capital of the chief imperial western province, Gaul, already, perhaps, one of the provincial mints of Augustus, was established as the one great imperial mint for gold and silver. This great reform once achieved, Augustus closed the senatorial mint for gold and silver. He must, it is true, have risked offending the conservative sentiment he had previously treated with respect, but (1) he had now a definite system of coinage to show, instead of a number of more or less provincial mints, (2) he still studied conservative feeling in so far as to refrain from striking in Rome itself. This last step—the opening of an imperial mint in Rome—a flagrant violation of Republican usage, such as Augustus seldom permitted himself¹⁰—was reserved for the Emperor Caligula.

¹⁰ But Julius Caesar had practically shown the way.

Mommsen, arguing from the fact that M. Sanguinius and P. Licinius Stolo, alone of all the moneyers, struck in brass as well as in gold and silver, very ingeniously deduced that in their year of office (c. 15 B.C.) the senatorial mint finally ceased to coin gold and silver and commenced its new issue of imperial brass. This theory is now absolutely untenable in view of the new dating of the moneyers. We lose the dramatic touch so loved by Mommsen—the definite settlement of the problem of coinage, once and for all, in a given year. But coming nearer to the actual historical truth, we find something of much more real interest—the cautious and conciliatory movement so characteristic of Augustus, the slow and gradual transition from the old system to the new. It is curious that Mommsen, who more than any other man taught scholars to appreciate the tact and skill with which Augustus treated the Senate and respected its rights, as those of a partner with him in government, should have failed to detect this very striking and interesting illustration of his thesis.

The following table gives a brief summary of results:

B.C. c. 82	A' and A	Æ
	<div data-bbox="567 1157 826 1185"> <hr/> Senatorial issues cease. </div>	
49		
44		
44		

- 49 First gold coins struck in Rome, on authority of Julius Caesar.
- 44 Head of Julius Caesar used as obverse for coins.
- 44 After death of Caesar, Senate issues gold through the moneyers.

44 GOLD AND SILVER OF THE SENATORIAL MINT.

N and *NI*

Æ

c. 36	Senatorial issues cease. "Military" issues in provinces continue.	
c. 23		Senatorial issues recommence.
22		" " continue.
21		" " "
c. 17	Senatorial issues recommence.	
16	Senatorial issues continue	
15	" " "	Senatorial issue.
14	" " "	
14	Foundation of great imperial mint of Lugdunum.	
13	Senatorial issues cease.	
<hr/>		
12		Senatorial issues continue.
c. 7		
c. 7		Moneyers' names appear for last time.

H. MATTINGLY.

IV.

THE LARK HILL (WORCESTER) FIND.

[See Plate IV.]

I HAVE lately, through the kindness of Sir Hercules Read, had the opportunity, which I very much welcomed, of examining a find of coins, chiefly of the early issue of King Henry II, struck between the years 1156 and 1180, together with a few foreign coins. After a brief description of the English pieces, I propose to offer a few notes relative to some of the foreign coins included in the find, and to some of the difficulties which strew the path of a student of English coins when he is confronted with the foreign contents of a hoard of mixed English and foreign coins.

This hoard was recovered at Lark Hill, Worcester, about 1850, and is very briefly described in *Archæologia*, vol. xxxvi. The contents roughly were pence, cut half-pence, and cut farthings of Henry the Second's first issue, now known as of the Tealby type, about 200: seven or eight coins of Anjou, and the like number of coins struck by the Abbot of St. Martin de Tours; one example of a coin of Odo of Burgundy; a portion of a coin of Eustace of Boulogne, and a penny and cut halfpenny attributed to David I of Scotland. Besides the coins there were some rings, some set with stones or pastes. These latter caused the second burial of the hoard in the Mediaeval Department of

the British Museum. A few specimens were transferred to the Department of Coins in 1855, and it then remained untouched until a few years ago, when Mr. Brooke removed a few more to the Medal Room. They included the single foreign pieces and a few of the best specimens of King Henry's coins.

In order to make the subject of the English portion of the find more intelligible I must refer to the classification of that coinage of Henry II which began about 1156 and ended in 1180 with the establishment of the short-cross coinage. I dealt with this subject at length in a paper read at the British Numismatic Society on March 27 last, and in that paper I suggested a method by which the hitherto unclassified mass of coins might be reduced, anyhow in great part, to some kind of order of issue. Although collectors have been in the possession of large quantities of these coins for well upwards of a century, nobody appears to have troubled to notice, or rather to describe, the large number of different busts which are shown on the coins. This I endeavoured to do, and I also showed that each of the busts was accompanied by a corresponding change in the obverse legend. The legends therefore were of considerable help towards classification, as there was less difficulty in the majority of cases in deciphering them, than there was in making out every detail of the bust in these very badly struck coins.

The obverse legends on the issue under consideration read from *HENRI REX ANGL* to *HENRI* alone, and the first word *HENRI* is the only one in which we do not find abbreviation or absence except by accident. Mr. Nathan Heywood in 1904 gave a list of most of these readings. They are:

HENRI REX ANGL
 HENRI REX ANG
 HENRI REX AN
 HENRI REX AG
 HENRI REX A
 HENRI R ANG
 HENRI R AN

HENRI R AG
 HENRI R A
 HENRI R
 HENRI RE
 HENRI REX
 HENRI

I noticed on the coins that within certain limits all the coins, say, with the legend HENRI REX ANGL bore the same bust almost precisely in detail. The same was the case with coins reading HENRI REX. Thus I have never seen a coin with the longer of these two legends bearing the same sort of bust as that which appears within the shorter legend. The coins, however, reading HENRI REX ANG are almost exactly like those reading ANGL in full as regards the bust, and those reading RE and REX A permit many comparisons with those reading REX. The same holds for other groups with other readings.

An examination of the only two finds I know of where the coins under discussion were found mixed with other English coins brought out another fact, viz. that coins reading REX ANGL in full were found in large quantities with the last issues of Stephen relatively to the number of the whole find, whereas where short-cross coins were present there were hardly any REX ANGL coins. Thus in the Awbridge find there were thirty-one REX ANGL coins with thirty-four coins of Stephen, with other Henry II coins in numbers up to six. In the Rome find, where the bulk of the English coins was of the early short-cross issues, there was only one REX ANGL coin. This led me to place coins reading HENRI REX ANGL as the first of the

issue of what we now call the Tealby type coins. The remaining groups were arranged on the well-known sequence of the moneyers of Bury St. Edmunds. These moneyers were three in number, following each other consecutively. They were William, Henry, and Raul.

William struck coins reading REX ANGL, REX ANG, R:K, R:KN, R:KG. Henry continued with R:KG, followed by REX KN and REX; Raul continued with REX, and added RE and REX K. I have therefore arranged the coins accordingly, but instead of making a separate class of each of these legends, they are in some cases combined as varieties of one class where the busts are too much alike to allow a class distinction to fall on the legends alone. The resulting classification is:

Class I.	Class II.	Class III.	Class IV.
a. REX ANGL ¹	a. R:K ²	REX KN ⁶	a. REX ⁷
b. REX ANG ²	b. R:KN ⁴		b. RE ⁸
	c. R:KG ⁵		c. REX K
Class V.	Class VI.		
a. hENRI ⁹	Inner circle coins. ¹⁰		
b. hENRI, &c.			

Coins of Classes V and VI may require future readjustment.

I can now state approximately the English contents of the Worcester find:

Class I.	Class II.	Class III.	Class IV.	Class V.	Unclassed.
a. 44	a. 11	4	a. 42	0	REX KG
b. 13	b. 0		b. 7		3
	c. 2		c. 2	2	

¹ Pl. IV, No. 1 *a* and *b*.

² Pl. IV, No. 2.

³ Pl. IV, No. 3.

⁴ Pl. IV, No. 4.

⁵ Pl. IV, No. 5.

⁶ Pl. IV, No. 6.

⁷ Pl. IV, Nos. 7 and 8.

⁸ Pl. IV, No. 9.

⁹ Pl. IV, Nos. 10 and 11.

¹⁰ Pl. IV, Nos. 12-14.

The mints represented in the find were Canterbury, Carlisle, Durham, Exeter, Hereford, Ipswich, Leicester, Lincoln, London, Newcastle, Northampton, Norwich, Oxford, Bury St. Edmunds, Thetford, Wilton, Winchester, and York, eighteen in number, or about half the mints known to have struck these coins. There may, however, be other mints represented in the large number of partially or totally illegible coins. The mints absent from the find are Bedford, Bristol, Chester, Colchester, Gloucester, Ilchester, Lewes, Launceston, Lynn, Salisbury, Shrewsbury, Stafford, and Wallingford. With the exception of Bristol, Gloucester, and Ilchester, coins from these mints are very uncommon, and those from the three mints just mentioned are not to be found easily.

The coins of Anjou on the obverse bear within an inner circle a cross with \mathcal{K} and ω suspended from two limbs, outside the circle the legend **FVLCO COMES**. The field of the reverse is filled by what is known as the monogram of **FVLCO**, also contained within an inner circle, outside of which are the words **VRBS ANDEGAV** or some parts thereof. The coins are quite common French feudal coins, but the interest of them is in a consideration of their authorship.

There were five Fulkes and five Geoffreys, Counts of Anjou before our King Henry inherited the country from his father, Geoffrey Plantagenet, Geoffrey V surnamed *le Bel*.

The dates of the later Counts of Anjou are as follows :

Fulke III, 987-1040.

Geoffrey II, 1040-1060.

Fulke IV, 1060-1109.

Fulke V, 1109-1129.

Geoffrey Plantagenet, 1129-1151.

Henry II of England, 1151-1168.

Henry, 1168-1183 (son of Henry II).

Richard Cœur de Lion, 1183-1199.

The coins of the type described are attributed by the French authorities to Fulke IV and Fulke V.

There are other coins of the same identical type, but having the obverse inscription GOSFRIDVS COS or some portions thereof which are attributed in like manner to the earlier Geoffrey II and to Geoffrey Plantagenet. All these pieces are deniers. There are known oboles bearing the name of Geoffrey of the same type as the deniers, but the only obole bearing the name of Fulke has for its reverse that called the Châtel Tournois, and here I must leave these coins of Anjou for the moment to refer to the coins of the Abbot of St. Martin de Tours found with them.

The type of these seven or eight coins is: *obv.* the Châtel Tournois. Legend, SCS MARTINVS. *Rev.* cross *pattée* within an inner circle, legend TVRONVS CIVI. The French numismatists have cleverly been able to trace the formation of the châtel gradually from the old Temple which was originally represented on many French feudal coins. The change involved many slight alterations, and its evolution took a very long time. Eventually the Châtel Tournois became not only the regular type of the French silver coins, but gave the names of the *gros* Tournois and the *petit* Tournois to the coins. The first regular French coins to bear the type, as far as I can ascertain, were struck by Philip II, 1180-1223. This shows us quite clearly that the châtel type as struck at Tours was a late one, also that it was in use before 1180, as

Philip copied it on to the regal issue and also used it on feudal coins of Tours with his name PHILLIPVS RE for the reverse legend. Applying this knowledge to our Anjou coins which we have just left, we can conclude that the obole as bearing the châtel well formed is late, and that it therefore could not have been issued as early as Fulke V, who died in 1129, and who was the last Count of Anjou having the name of Fulke. The find contained no coins bearing the name of Geoffrey and no oboles. My conclusions are that, in view of the Fulke obole, the Fulke deniers found with Henry II's coins are late coins, and if such be the case they must have been issued either by Geoffrey Plantagenet or by his son Henry II as Count of Anjou.

This brings me to what the French call immobilization of type. We as coin collectors are apt to forget the primary use of these metal tokens as a means of simple barter. So long as a coin was understood and recognized by the people among whom it was to circulate for value, it did not matter in the least what was the design, still less the legend upon it, among an illiterate population. The result anyhow in France was that during the eleventh and twelfth centuries, and even before, many of the feudal coins retained the names and designs of much earlier originators. Such was particularly the case with the coins of Melle, which from the time of Charlemagne to that of our Richard I were of the same type and bore the same legend, viz. CARLVS REX. The different periods can now only be recognized by the different styles of workmanship, and any kind of accurate classification into anything like years is wellnigh impossible. The same immobilization of type took place in England from

1180 to 1247, and the result was the literature in the *Numismatic Chronicle* entitled the "Short-cross question". Again, at the end of the reign of Henry VIII the type and name became immobilized into the reign of Edward VI, and again was reflected in the pages of the *Chronicle*. It is not surprising therefore when we meet with these coins of Anjou and St. Martin de Tours to find the name of Fulke on the one and a complete immobilization of type on the other. This should not lead to a conclusion that they are of a markedly different period from the English dateable coins which were found with them. Coins of the same types of these two places were found with the same English coins mixed in the Rome find. My own belief, given for what it is worth—perhaps not much—is that the coins of Anjou and St. Martin de Tours, then under the jurisdiction of the Counts of Anjou, are the continental issues of Henry II of England and his son Henry as Counts of Anjou, and that immobilization of type caused them to read Fulke; also that Geoffrey Plantagenet, anyhow for Anjou, used the name of Fulke only. I do not like the suggestion that coins were struck in both names at the same time. As the French numismatists have not yet worked out these coins with sufficient minuteness they are useless in dating the burial of the hoard. The English coins, too, in the absence of specific dates for the moneyers do not help us much. Most of the types, however, were found at Lark Hill, and I therefore think that they must have been buried shortly before 1180, the date of the issue of short-cross coins, none of which were found in the hoard. The find points out to us how possibly commerce influenced the hoarding of these coins. Early

post-conquest finds are usually unmixed with foreign coins. Thus we get these two finds of Tealby type coins, this with French feudal coins and the Rome find with more French coins, and one of possibly German origin. Finds of short-cross coins abound with coins of Germany and the Low Countries, and long-cross hoards with those of the Low Countries again, as was also the case with coins of early Edwardian times.

L. A. LAWRENCE.

LIST OF COINS.

CANTERBURY.

HENRI REX ANGL	+ H · RE · · · · ON : CANTO
HENRI REX ANGL	+ GOL[DRATVOC]ON : CANT
" " "	+ GOLDRATVOC · · · ·
" " "	+ GOLDRATVOC ON : CANT
" " "	+ GOLDRATVOC : [ON] : CANT
H[ENRI RE]X	+ GOLD · · · · ON : C · NT
HENRI REX ANGL(I?)	+ RIC[ARD : O]N : CANT
HENRI : R : H	+ R[ICARD]D : ON : CANT
HENRI R · · ·	+ RICARD[R : D : ON] : CANT :
HE · · · · REX · ·	+ RICARD[D :]ON : CANT
HENRI REX	+ RICARD : ON : CANT :
HENRI REX ·	+ RICARD : ON : CANT :
HENRI REX	+ RICARD : ON : CANT :
HENRI R · ·	+ RICARD[D : ON : C]ANT ·
HENRI RE[X?]	+ [RIC]ARD : ON : CANT :
HENRI RE ·	+ RICARD : ON : CANT
HENRI · R	· · RDCTR · ON : CANT
HENRI REX ANGL	+ RICARD : M : O[N : C]ANT
HENRI REX ANGL	+ RICARD : ON : M : CANT
HENRI RE :	+ RICARD : M : E[: ON :]CANT

HENRI REX TN	+ROGIER:ON:CTN (no central star)
HENRI REX.	[+R]OGIER:ON:CT....
?	+ROGIER:ON:CTN
HENRI REX TNGL	+WIVLF:ON:CTNT:
.....TNGL	+WIVLF:O.....N...
HENRI REX....	+WIVLF ON:CTTO
.....TNGL	+WIVL.....TTO
HENRI REX...	+WIVLF:ON:CTNTO (late C)
.....TNGL	.....:ON:CT
.....TNGL type	+R.....TNT
.....TNGL	+.....:CTNT
.....REX TN	.....NO:CTN
.....REX	.....ON:C
.....REX type	.....CTNT

CARLISLE.

HENRI:R:T	[+W]L[L]TOI:ON:CT
HENRI REX T	[+W]I[L]LTME:ON:C[T
HENRI [REX]	+WILLT[M:ON:]CT

DURHAM.

HENRI REX TNG	[+IOh]TN:ON:DVN[.
---------------	-------------------

EXETER.

HENRI REX TNG[L]	[+GVNC]ELIN:ON:E....
HENRI REX.	[+ROG]IER:ON:EXSE[....
.....REX	.....ON:E[X]

HEREFORD.

HENRI REX TNGL	+S.RN:ON:HERFD
HENRI:R:T	[STEFN O]N:HEREFORD:
HENRI R..	.....ON:HERFO

IPSWICH.

HENRI RE[X]	+NICOLE : ON : GIP[ES]
HENRI RE?	+ [NIC]OLE : ON : GIPE : } same
HENRI	+NICOLE : ON : GIPE : } die
HENRI R	+NICOLE : ON : PIP
HENR	[+N]ICO[LE:] ON : PIP . . .

LEICESTER.

HENRI REX TNGL	+RODBER ON : LERE
----------------	-------------------

LINCOLN.

HENRI [REX]	[+TN]DRE[V : ON :] LIN . .
HENRI : REX	TNDR[EV : ON : L]INC
HENRI REX . .	+AND[REV : ON :] LINCO
HENRI REX TNG	+LTNF I ???
HENRI REX TNGL	+SWEIN : ON : LINCOL . .
HENRI REX	[+]SVEIN[: ON : LINC . .]
HENRI REX	+SVE[IN : ON : LIN]COLN
HENRI REX TNGL	[+]ON : LIN[
. . . . .	. . . . . NCOL
EN EX	. . . . . ONLI

LONDON.

HENRI RE	+TLWINE LV
HENRI REX TNGL	+EDMVND : ON : LVN
.	+EDMVND : ON : L . .
HENRI REX TNG[L]	+GEFR . . ON : LVN : I
HENR	+GEEFREI
HENRI REX TNGL	+GODEFEI ON LVN . .
HENRI : R : ?	+GODEFR[EI]ON . . .
HENRI REX	+GOD[EF]REI : ON : LV } same
HENRI REX	O EFR ON : L } die
HENRI REX	[+GODE]FREI ON LV . .
HENRI . R . .	+hVN[FREI : ON : LVN]DE

HENRI REX TNG	+IOh[TH:ON:]LVN[D]
HENRI REX T[NGL]	+LEF]W[IN]:ON:LVND
HENRI REX TNG	+LIWIN N
HENRI REX	+LEFWINE:ON:LV:
HENRI REX [TNGL]	+SQTRTIN:O.....
HENRI REX TNGL	+MARTIN:ON:.....
HENRI REX TNG	+M[ARTIN]:ON:LVM
HENRI REX TNGL	+PIRE[S]:ON:LVN
HENRI REX	+PI N:LVN
HENRI REX TNG	+SWTMAN:ON:LVN
HENRI REX TNG	+ :ON:LVN
HENRI:R:T	+ :ON:LV.
h[ENRI RE]X T	+ L: ON:LVN
HENRI REX	+ D: ON:LV...

NEWCASTLE.

HENRI REX TH[GL]	+PIL[LAM:ON:NIV]T
HENRI R[EX]	+PILL[EM:ON:NEV]CAS:

NORTHAMPTON.

HENRI REX TNG[L]	+ENGELRTM:ON:..
HENRI REX TNGL	+WARMIR:ON:NORhT

NORWICH.

HENRI REX	ERE- :ON:NO....
HENRI REX TNGL	+HE[RBERT:ON:NOR]EPI
HENRI REX TNGL	+HERBERT:ON:NORPI
HENRI REX TNG	+]NICOL : ON:N[.....
HENRI REX TNG	+NIC[OLE]:ON:NORW
HENRI REX TNGL	+PICOT:O[N:NO]REP
HENRI REX TNGL	+PICOT:ON:.....
HENRI REX T..	+R[EINIER ON NO]RWI
HENRI REX.....	+REINER[:ON:]NOREP
HENRI RE (like R:T type)	[+] :ON:NORPI
HENRI REX	[+] ON:NOR..

OXFORD.

HENRI REX ANGL + ASch[ETIL]: ON: OXEN

SALISBURY.

HENRI REX AN[GL] + LEVRIC: ON: STALEB

ST. EDMUNDSBURY.

HENRI: R: AG	+ PILL[AM: SE]DSRVN	
HENRI: R: AG:	+ [h ² ENRI: O]N: S: ED	
HENRI REX AN	[+ hEN]RI: ON: S: EDMIV	
HENRI REX AN	+ hENRI: ON: . . . M . .	
HENRI REX	+ hENRI: O[N: S]: EDM:	} same
HENRI REX	+ h[ENR]I: ON: S: EDM[:]		die
HENRI REX	+ RAVL: ON: MV	
HENRI REX	RAVL: ON	
.	+ RTVL: ON	
.	+ ON: S: EDMIV	

THETFORD.

HENRI REX [ANGL]	[+ S]IWTT[E: O]N: TEFFO
HENRI REX	[+ S]IWTT[E: ON]: TE . .
HENRI: REX	[+]SIWTT: OM: . . .
HENRI REX ANG	+ PILLES: ON: TETFO

WILTON.

HENRI REX ANGL LK[NTIER: ON:]PILTV

WINCHESTER.

HENRI REX AN[GL]	+ HERBERT: ON: WINC
HENRI REX ANGL	+ T: ON: WI
HENRI: R: T	+ HEREBERT: ON: PIN
HENRI REX ANG[L]	+ hO[SBERT: ON: W]IN
HENRI REX ANGL	+ hOSBERT? ON? WIN
HENRI: REX . .	+ WI ON: W

YORK.

HENRI REX [TNGL]	+ [HERB] E [RT : ON : EV] ER
TNGL	+ ON : EVER
	: ON : EV

CANTERBURY?

HENRI RE	TRD : ON :
HENRI REX TNGL	ADAM : ON : - - - A
REX AG	+ R [I] C : ON : O
REX	+ RICTRD : ON : . . .
Quite illegible.	+ [RI] CTRD

IPSWICH?

?	+ ROBERT : ON : [GI]
---	----------------------

WINCHESTER?

HENRI : R : A	PILLES : ON : . . N
---------------	---------------------

?

TNG(L)	. . . L or Ch : ON
TNGL	+ TN N ?
TNGL	- - - DBERT
?	WILLEM : ON : ON :
TNG	+ WILLEM
TNG	ENC : ON
R : A	VI
REX AG	VL + [like F] : ON : E late
?	+ WIL IN Winchester ?
?	+ RICTRD
REX	?
REX	RTV [EM] or [L]
REX	IER ?
REX	ODI . ON
REX	+ NI ; also NICOLE
REX	- - OBER

LONDON?

hENRI REX S	... FVIN -: ON:
hENRI: R: π	DPI: ON
ANGL type	.. RES: ON:
ANG	... ES: ON
: R: π type	: ON: L
: R: π type	PIERE
?	PERES ON
?	PIERIS
REX	RES: ON

NORWICH?

hENRI REX	+ HERBE - - - OR - -
hENRI: R: π	.. REBERT: ON:
?	HEREBERT ON

BURY?

REX: π G	ON - - M
	?
: REX	+ ERT
REX	?
: RE	[hE] or [RO]BERT: ON:
late type	+ ROG... ..
N	IN: ON: L Lincoln?
hENR...	DE
?	M?: ON: W
?	+ WI... HM:

16 hopeless.

5 halves. 1 quarter. 5 bits.

SCOTTISH.

1 penny, 1 halfpenny (? David I)

FRENCH COINS.

ANJOU (*obv.* cross with $\overline{\text{AW}}$; *rev.* monogram).

+FVLCO COMES	+VRBS ANDEGAVS
+FVICO COME2 + $\overline{\text{AW}}$	+VRBS ANDCOSIV
+FVLCO ?OMES + $\overline{\text{AW}}$	+ ANDEGAV -
+FVLCO COMES	+VRBS ANDGAVIS
	mono. reversed
+FVLCO COMES	+ .. BS ANDEGAVIS
	mono. reversed 2
+FVLCO COME2	legend incomplete

TOURS (*obv.* châtel ; *rev.* cross).

+SCS MARTINVS	+TVRONVS CIVI
+SCS MARTINVS	TVRONVS CIVI
+SCS MARTINVS	TVRONVS CIVI
+SCS MARTINVS	TVRONVS CIVI
+SCS MARTINVS	TVRONVS CIVI
+CS MARTIN[VS?]	TVRONVS CIVI
	<i>obv.</i> lettering different
+SCS MARTINVS	TVRONVS CIVI
obliterated	ONVS CIVI

NOTE.—Since the above article was written, the remainder of the coins described have been transferred to the Department of Coins, which is much indebted to Mr. Lawrence for his assistance in classifying and registering the hoard.

G. F. H.

V.

TWO MEDALS OF ENGLISHMEN.

[SEE PLATE V.]

THE pleasing medal of Tanfield Vachell illustrated in PL. V requires little description, beyond saying that the metal is silver and that its diameter is 2.05 in. (52 mm.). It is in a private collection in France. The owner has kindly given me permission to publish it here.

Tanfield Vachell,¹ of Coley, Reading, was the son of Thomas Vachell and Anne Tailleur. He was baptised on April 14, 1668; was High Sheriff for Berks and M.P. for Reading in 1701 and 1705; and was buried at St. Mary's, Reading, on October 27, 1705. Beyond these bare facts there appears to be little to tell of him.

Although there is no artist's signature, we may, I think, make a reasonable conjecture as to the authorship of the piece. The age of the sitter, whose features are fleshy but still firm, with incipient double chin, may be anything from 35 to 40 years. The medal bears a surprising resemblance in modelling, treatment of bust and wig, proportion of bust to field, and moulding of border, to those of Sir Jacob

¹ See the account of the family by G. P. Crawford in *Quarterly Journal of the Berks Archaeological and Architectural Society*, vol. iii (1893-5), especially pp. 88-9 and the family tree at p. 68. I have to thank Mr. Mill Stephenson for referring me to this authority.

Bancks and Sir William Rich (*Medallic Illustrations*, Pl. cxviii. 5 and 6). The latter is illustrated in Pl. V, No. 2, for comparison. The only difference noticeable is in the lettering, which is smaller and better spaced in the Vachell medal. The stops, which are round in the Bancks, are triangular in the Rich, as in the Vachell medal.

The Bancks and Rich medals, with others of well-known Englishmen of the time, were made in 1703 by Benedikt Richter,² a Swede who visited England in that year. As this date falls just within the period suggested by the age of the sitter, I venture to propose that Vachell was another of Richter's subjects.

A curious technical point arises in connexion with these medals. Vertue, as quoted in the *Medallic Illustrations* (vol. ii, p. 248), says that Richter "first modelled them by the life, and cast and repaired them curiously". Judging from the plaster-cast of the Vachell medal, which is all I have to go by, I should have supposed it to be struck. The British Museum specimens of Richter's medals of Sir George and Lady Rooke, Sir Jacob Bancks, and Sir Richard Nevill are all cast; one of them, as the better of the two specimens of the Nevill, is a remarkably fine casting, which requires close examination before it is seen to be cast and not struck. But Mr. Grueber, in the Medal Room copy of *Medallic Illustrations*, has altered "cast" to "struck" in the description of the Bancks medal; and on the ticket under the better of the two specimens in the Museum is written "Presented by Mr. Franks (Oct. 1874). To be returned when a struck specimen is obtained."

² Forrer, *Dict.*, v, p. 119.

It looks as if one of the other known specimens has been judged to be struck. But in view of Vertue's statement it is possible that it, like the rest, is only a very fine casting.

Whatever be the correct date and attribution of the medal of Vachell, there can be no doubt that the next piece to be described (illustrated on the scale of one-half in Pl. V, No. 3) was made in 1703, and that it is a casting by Massimiliano Soldani-Benzi. Faint traces of his incised initials, M.S., are visible on the truncation of the bust, which represents WILLELMVS DOMINVS DE WILLIERS ÆTAT A XX., and is dated MDCCIII. On the reverse is a design, typical of the artist, of a nude winged genius sacrificing before a temple of Minerva. The casting, which is poor, is in bronze, and measures 3.5 in. (88.5 mm.). It was recently acquired by the British Museum, and is the only specimen so far recorded.

The date of the birth of William Villiers, second Earl of Jersey, is, according to the *Dictionary of National Biography*, not quite certain; that work puts it in 1682 (?). If, as the medal tells us, he was in his twentieth year in 1703, he must have been born in either 1682 or 1683. Like John Inglis, whose medal by Soldani is also dated 1703 (*Medallic Illustrations*, ii, p. 250, No. 41), Villiers must have been in Florence then, since Soldani is said not to have worked outside that city after 1686.

G. F. HILL

MISCELLANEA.

NIKOKLES, KING OF PAPHOS.

IN the *Numismatic Chronicle* for 1915, Vol. XV, there appeared an article entitled "Some Cypriote Alexanders" which dealt with certain coins of Alexander the Great apparently struck in various cities on the island of Cyprus. Since the publication of this paper some additional evidence has turned up to prove the general correctness of these attributions, but none, perhaps, more interesting or final than that recently brought to my attention by F. Munroe Endicott, Esq., a fellow-enthusiast for the Alexander series.



Among other coins treated of in the above article there were a few assigned to Paphos. This attribution rested principally on the probable solution of the monogram $\Pi\Lambda\Phi$ into $\Pi\Lambda\Phi$, supported by the similarity of these coins in various particulars to others struck at Marion and Salamis. Later some bronze coins of this type reached me from Cyprus itself, thus tending to corroborate the attribution to that island. Of still greater definiteness is Mr. Endicott's recent discovery on one of these Paphian tetradrachms of the name of the famous Nikokles, king of Paphos, who with

his family came to such a tragic end in the reign of Ptolemy I. On at least one obverse die of these coins may be deciphered the letters **NIKOKΛEOYΞ** minutely engraved on the right-hand row of locks running from the ear to the jaw of the lion's-skin head-dress of Herakles. The accompanying drawing, slightly enlarged, gives the details of this remarkable inscription. If the coin itself be so held that Herakles faces downwards, the letters **ΝΙ** will be found on the first lock to the left, **ΚΟ** on the next lock to the right, **ΚΛ** on the third, **ΕΟ** on the fourth, and **ΥΞ** on the fifth and last lock immediately adjacent to the lion's ear. The obverse die most clearly showing these letters is the one associated with the reverse die bearing a laurel branch as symbol and the misspelt title **ΒΑΣΙΛΕΩΞ**.

That the name Nikokles should appear on a coin which, for other reasons, had already been assigned to the mint of Paphos is most interesting and valuable, as it can only represent the name of the historically famous king of that city. It is also the first instance of any ruler except Alexander himself or his immediate successor Philip III placing his own name in full upon the coinage of the Alexander type. It was not until fully fifteen years later that such powerful kings as Seleukos, Lysimachos, Ptolemy, or Demetrios dared or found it advisable to do the same. That it was Nikokles who actually took the first step, although prudently causing his own name to be engraved in microscopic letters and hidden among the hairs of the lion's mane, while the **ΑΛΕΞΑΝΔΡΟΥ** still appears in large letters in its accustomed position on the reverse, throws an interesting sidelight upon the Paphian king's independence and pride of character, exemplified by the story of his subsequent career. Our coin, then, would seem to represent an early instance of his assertion of independence.

In thanking the Editors of the *Chronicle* for thus allowing me the opportunity of bringing Mr. Endicott's interesting discovery to the attention of students, I would also like to thank Mr. Endicott for his generosity in granting me permission to publish his valuable contribution to the study of the Alexandrine coinages.

E. T. NEWELL.

GALLEY-HALFPENCE.

With regard to Note B by Mr. Simonds on pp. 120-1 of Part I of the *Numismatic Chronicle* for 1918, it is quite certain that, whatever the Galley-Halfpence were, he is right in believing that they cannot be identified with the Nuremberg counters.

I referred to a similar mistake in note 24, on p. 79 of my book on the casting-counter.

(1) The Galley-Halfpence belonged to the period of the three Henries of the fifteenth century, with a recrudescence in 1519 which was dealt with then (Ruding, i. 302). Indeed from 1423 till the latter date we hear nothing of these coins, so that evidence as to them is practically confined to the reigns of Henry IV and Henry V.

(2) The Nuremberg counters did not appear in England till the first quarter of the sixteenth century.

(3) The Galley-Halfpence were of silver, though evidently more or less debased (Ruding, i. 249; a^o 1399). Had they not been ostensibly "white money" they would have had no chance of circulating in a country where a copper currency did not yet exist. Moreover, we know that they could be sold as bullion to the Tower Mint for re-coining (Ruding, i. 256; a^o 1414; *ibid.*, 258; a^o 1415). Further, we find them classed with the debased Scotch silver money in 1402 and 1411 (*ibid.*, 250, 254), and with suskins and doitkins in 1415 and 1423 (*ibid.*, 257, 270), which also were of inferior silver, or billon, being themselves in turn classed with Scottish monies (Stow, *London*, 1599, p. 97).¹

(4) The Nuremberg counters were always struck in latten, or some other alloy of copper, and the module of the earlier

¹ Hazlitt, in his *Coinage of the European Continent*, p. 237, considers suskins and doitkins to be the same as the galley-halfpence. In Ruding (i. 303-4) they are separated from them in the proclamation (see, too, Spelman, *Glossary*, 1687, p. 254). In my Lectures on English Numismatics delivered some years ago at the University of Liverpool, I find I have (but the authority is unfortunately lost): "Suskins and doitkins were Low-Country pieces. The Flemish suskin represented six mites, that is, half a farthing; the Dutch doitkin was equivalent to two penningen, that is, two modern French centimes, or $\frac{1}{2}$ of a penny." Long after we find in *Sir Gregory Nonsense*, by Taylor the Water Poet (d. 1654): "Not, like the Dutchman, in base Doits and Stivers."

ones (c. 7-8, Mionnet) was far too large for them to pass as halfpence, even if fraudulently plated for that purpose.

There is a feature of certain of the sixteenth-century German reckoning-pennies that may possibly (though it is difficult to believe it) have led some to confuse them with the Galley-Halfpence. One of the commonest Nuremberg counters found in England is that which bears on the obverse a ship. This is almost always associated with a reverse bearing four lys in a lozenge, reproducing a familiar design found on French and Tournay jettons of the fifteenth century (e.g. *Castling-Counter and Counting-Board*, p. 119, No. 52), doubtless one of the various presentments of France-ancient. The error may have been assisted by the retention on these pieces of Lombardic lettering far into the sixteenth century, which would make them appear earlier than their real date. The combination of these two types, however, probably represents the arms of Paris, and this seems the more likely because those that bear a genuine legend commonly read **VOGVΘ·LT·GILLΘΘ·DΘ·FRTHΘΘ** (e.g. *ibid.*, p. 210, No. 8, which has the first word blundered on the die): a conclusion that is apparently confirmed by my No. 17, on p. 211, which, with similar types, reads instead on the obverse **FLVCTVAT·NEC·MERGITVR**, the attendant motto of the coat of Paris. Some of the later issues of this class of counter have as obverse legend **SCHIF·PFENING·NVRENBORG** (e.g. *ibid.*, p. 211, No. 15). All this may have helped to confound the counters with the coins.

F. P. BARNARD.

HOW WERE SILVER COINS TESTED IN ANTIQUITY?

THE following remarks may be of interest in connexion with the observation on p. 128, ll. 4-6, of the *Numismatic Chronicle* for 1918:

When lecturing at Liverpool to a post-graduate class, a question arose as to the helplessness of the people with regard to the debased silver coin of Henry VIII. I stated that it was not possible to gauge the purity of silver money without assaying, which meant destroying the coin. To justify my statement I procured the following letter from an expert.

"It is not possible accurately to determine the amount of alloy in a silver coin without destroying it. I have on

several occasions ascertained the approximate amount of silver in old coins by scraping off the edge, but the weight of the sample obtained in this way is necessarily very small, and the result uncertain. An approximate idea of the proportion of silver could be arrived at by carefully taking the specific gravity of the coin (a process not understood in the days of Henry VIII). The method of assay used in Tudor times was undoubtedly cupellation (i.e. using the melting-pot), which was the officially recognized test for the trials of the coin from the time of Henry III. It was the only accurate method of silver assay practised till quite recent times. Cupellation would, of course, involve the cutting up of the coin, and the melting of a weighed portion with lead. Although the touchstone was used in early times for the testing of precious metals, it could never have been a satisfactory method of ascertaining the purity of silver, and appears to have been employed to a much less extent for this metal than for gold. This test has been little applied to silver for some centuries, and I think it improbable that it was used as a method of assay for that metal in the Middle Ages. For testing gold the touchstone gives more accurate results, and it has survived for approximate assays until the present day. It is used by assayers as a preliminary test to discover the approximate composition of gold bullion, and also by jewellers to determine the carat quality of gold jewellery. It is, however, never recognized as an official test for gold." (Letter to F. P. Barnard from Mr. Ernest A. Smith, Assay Office, Sheffield, July 26, 1911.)

F. P. BARNARD.

NOTICE

The Address of the Royal Numismatic Society is changed to 22 Russell Square, London, W.C. 1, where the Library will be housed and all Meetings will in future be held.

VI.

THE PRE-IMPERIAL COINAGE OF ROMAN ANTIOCH.

[SEE PLATES VI, VII.]

FROM among the many-tetradrachms which bear the name and types of the Seleucid king Philip Philadelphus one series stands out prominently because of the distinctiveness of its fabric and style, and because it always displays the characteristic monogram **AT** and certain interesting alphabetical numbers. These very individual characteristics place the tetradrachms which we propose to discuss in a category by themselves. They evidently form a continued and compact series entirely separate from the regular issues of the Seleucid king. Moreover, the portrait they bear is common only to themselves, and utterly at variance with the features of Philip as we have come to know them on the coins which were certainly struck during his reign (compare **Pl. VI. a** with the other tetradrachms on this plate).

Particularly curious is the technique displayed by our tetradrachms. The relief is exceptionally low, the workmanship mediocre and uninteresting, the details repeated in stereotyped fashion throughout the series. The drapery of Zeus, the Nike which he holds, the figure of the god himself, are all executed

in a flat, stiff, and unchanging manner. The individual letters of the inscription are clumsily fashioned, while the heavy guiding lines, which were first engraved on the die to ensure a uniform height to these letters, are left plainly visible. The letters themselves were made by drilling large dots at the salient points and later filling in the required strokes. As a consequence, the inscriptions are wellnigh illegible, doubly so because in this series the flans or blanks used were generally smaller than the dies themselves. The whole effect is one of uncouthness, clumsiness, lack of artistic ingenuity and skill, and a general air of uniform degeneracy that definitely distinguishes our coins from the remainder of Philip's issues—although the latter, in all conscience, can lay small claim to any artistic excellence. It is as if the die-cutters had all been given one model to follow, and had, indeed, been eminently successful in accomplishing this feat, with a resultant loss of originality and artistic feeling only equalled on the late tetradrachms of the Ptolemaic kings.

In a recent monograph¹ the present writer calls attention to the curious series now under discussion, because close inspection reveals the interesting fact that it could not possibly have been issued by the king whose name and titles it ostensibly bears. The monograph in question places before us a long and compact series of coins undoubtedly issued at Antioch by the Seleucid kings from Seleucus II to the capture of the city by Tigranes of Armenia. The numerous coins actually struck by Philip Philadelphus during

¹ "The Seleucid Mint of Antioch", *Amer. Journ. of Num.*, vol. li, 1917.

his six-year reign at Antioch² are there brought together, and bear clear evidence of having completely covered the entire period of his rule in the Syrian metropolis. These coins are indeed the direct successors of the Antiochene issues of Antiochus VIII and IX, Selencus VI, Antiochus X and XI, Demetrius III, and are, furthermore, the direct predecessors of the Antiochene issues of Tigranes. A continuous and closely joined sequence of style, magistrates, and mint-marks definitely proves the correctness of this assertion. Now into such a continuous and compact sequence of issues our particular series of tetradrachms, with their odd style, individual monogram, and alphabetical numbers, will in no wise fit. In other words, the ΑΤ series, because of great divergence of style and monogram, and because of many reasons yet to be enumerated, cannot possibly be assigned to Antioch during the years of Philip's reign in that city. On the other hand, we are placed in an embarrassing dilemma because it is equally certain that this very series must undoubtedly have once been struck in Antioch, and not in some provincial mint. The characteristic monogram ΑΤ appears throughout on all the members of the series. This same monogram (the forms ΤΑ and ΑΤ are both used) invariably occurs in the reverse field of the later tetradrachms struck at Antioch by Augustus between the years 6 B.C. and A.D. 11 (*B. M. Cat.*, Nos. 131, 132, 137, 140, 144, 146, 149). It also occurs on a municipal bronze coin of Antioch of the same period (*B. M. Cat.*, No. 68, Pl. xix. 6).

² According to Bevan, *The House of Seleucus*, vol. ii, pp. 260-1, Demetrius III held Antioch until shortly before 88 B.C. Therefore Philip's final rule in that city lasted from 89/8 to 83 B.C.

The monogram (however we may transliterate it, either as **AYTONO**...³ or **ANTIOX**..., or both) is evidently characteristic of the Antiochene mint, and as such appears on the coins of no other city. Additional evidence of the Antiochene origin of our coins is furnished by the monogram **Δ** beneath the throne on the reverse. This monogram appears again and again on Seleucid coins from Grypus to Philip which must be assigned to Antioch, as is brought out in the writer's recent monograph. Our curious tetradrachms indeed seem to present an enigma. On the one hand, the portrait they bear is unlike any in the entire Seleucid series; on the other hand, the name and titles are exactly those of Philip Philadelphus, and yet, because these coins were evidently struck in Antioch, they cannot be attributed to that ruler, since they will not fit in with the coins we know he actually did strike in that city. To cut this Gordian knot we must evidently accept the only obvious solution, namely, that the **Α** series of Philip, having undoubtedly been struck at Antioch, were nevertheless struck there at a later date than the reign of the monarch whose name and titles they seem to bear. Now that we have progressed thus far our eyes will readily recognize what has heretofore been somewhat puzzling. The curious and stereotyped technique displayed by our tetradrachms is simply due to the fact that they are nothing more or less than late and degenerate copies of the true Antiochene issues of Philip.

Fortunately for us these results may be arrived at in another and more definite way. Insufficient

³ See second note, p. 166 of the *B. M. Cat., Galatia, Cappadocia, and Syria*.

consideration seems to have been paid by numismatists to the interesting and highly important numerical letters found in the exergues of all the $\text{X}\Gamma$ series. At present the known numbers are: Γ , Δ , H , BI , ΘI , K , AK , BK , $\text{K}\Delta$, SK , IK , HK , ΘK —which undoubtedly form a numerical series running from three to twenty-nine. They can evidently be only one of two things: either serial numbers to designate consecutive issues of the tetradrachms, or dates. If the former, we can only, logically, conceive of the series having once been complete from A to ΘK . But to the present, in spite of the commonness of the coins in question, and instead of a nearly complete series such as we ought certainly by this time to have had, only thirteen of the twenty-nine numbers are known to us. This point may be made more apparent by noting that of the first nineteen numbers the impossibly small proportion of only five appears to be in existence. The fact, therefore, that of certain of the numbers we possess many examples, but that of more than half not a single specimen has come down to us, sufficiently disposes of the suggestion that they might be serial numbers to designate consecutive issues of tetradrachms. They must, therefore, be dates. This being the case, they must, again, either represent the regnal years of the king who struck these particular coins, or years reckoned according to some local era. Now at once it is plain that they cannot possibly be regnal years. The coins all bear the name of Philip, and Philip reigned but six years at Antioch. Not only can our coins not have been struck by Philip, but neither can they have been issued by his successor Tigranes. The Armenian king, as Dr. Macdonald has shown (*Num. Chron.*, 1902,

pp. 193 ff.), struck large numbers of coins at Antioch, all bearing his own types. These amply cover the fourteen odd years of his reign in that city, and leave no room, either stylistically or by the actual dates some of them bear, for the insertion of our **AT** series. It would, moreover, be most difficult to believe that such a powerful and proud monarch as the great Tigranes would strike coins bearing the name, titles, and types of his Seleucid predecessor, whom he had so ignominiously ousted from his realm. No, it is certain that Tigranes, immediately upon entering into possession of Antioch, commenced the coinage of tetradrachms bearing his own name and types. After the victories won by Lucullus in Asia and the subsequent evacuation of Antioch by Tigranes, the latter's successor, Antiochus III, issued a series of tetradrachms which apparently cover his short reign of four years ("The Seleucid Mint of Antioch", *loc. cit.*, pp. 125 ff.). With these coins the possible use of dates according to regnal years ceases. The only alternative that now remains must therefore be accepted, and the dates **Γ** to **ΘΚ** must admittedly correspond to the years of some era yet to be determined.

We have thus arrived at a point where it can be confidently stated that our series of Philip coins cannot have been struck before 64 B.C., and that the dates they bear cannot be regnal but should be referred to some local era. Now it is equally evident that our series cannot be placed after 7/6 B.C., for with that year there suddenly develops a continuous and feverish activity in the Antiochene mint. From this time on we possess a prolific and practically unbroken series

of imperial tetradrachms in silver and small denominations in bronze, together with large senatorial and municipal issues also in bronze, into whose serried ranks it would be impossible even to suggest the insertion of the X tetradrachms. From this it is clear that these coins can neither be royal Syrian nor Roman imperial issues. They must, therefore, fall *between* these two categories, or between 64 and 7 B.C. This at once simplifies our search for the true era to which the dates Γ to ΘK must apply.

Of the five eras which we know were in vogue at one time or another during the course of the first century before Christ at Antioch, only one perfectly fits the dates as they are found on the X series. Before discussing this particular era, however, let us review the evident reasons that force us to reject the remaining four. The first and undoubtedly the most common system of reckoning time employed at Antioch down to the arrival of the Romans was the Seleucid, taking its inception with the autumn of 312 B.C. For our purposes this era is at once ruled out, because the numbers on our coins run only from three to twenty-nine. No further notice of it would have been taken were it not for the fact that it has been suggested⁴ that these are really Seleucid dates, but that the century cipher (in this case Σ) has been omitted. This custom of leaving out the higher figures in dates, while common to Mohammedan, mediæval, and early modern coinages, has never, so far as the writer is aware, been employed for Greek coinages. Even if this suggestion were plausible, the fact remains

⁴ Leake, *Numismata Hellenica*, first part (Kings, &c.), p. 37, first note.


that $\Gamma(\Sigma)$, $\Delta(\Sigma)$, $H(\Sigma)$, and $BI(\Sigma)$ would fall between the years 109 and 100 B.C. In other words, the coins struck in the name of Philip, and bearing these supposed dates, would have then appeared not only before the death of Antiochus Grypus, but (absurdly enough) previous to the accession of Philip himself! Sestini has even gone so far as to publish coins of our variety with the evidently fictitious dates $AK\Sigma$, $ZK\Sigma$, and $\Theta K\Sigma$ (Sestini, *Descr. Num. Vet.*, p. 502, Nos. 1, 2, and 3, and later given by Mionnet in his *Supplement*, Nos. 385, 386, 387). No specimens of these pieces have since turned up, and experience has taught numismatists that unusual readings in Sestini are always open to grave suspicions. As we have seen, any era applied to our dates Γ to ΘK that would bring the issue of these coins before the flight of Tigranes from Antioch, and the subsequent reorganization of the province by Pompey in 64 B.C., need not be considered. This observation also rules out the Aspendian system of reckoning. This era, based on the year 111 B.C. when Antiochus Grypus returned from his flight to Aspendus, seems for a while to have been in use for public documents,⁵ and is also found employed on certain issues of Tigranes. Not only would the low figures on the Λ coins place the striking of some of these pieces before the accession of the king whose name they bear, but the highest date (29) would fall in 82 B.C., or one year after the deposition of Philip, and some eighteen years before the earliest possible date (64 B.C.) which we have established for the first appearance of our coins. In 64 B.C., on the reorganiza-


⁵ Wilcken, *Hermes*, xxix, pp. 436 ff.

tion of the Syrian province and its incorporation into the Roman dominions by Pompey, a new era, the Pompeian, was inaugurated and for a time used. At Antioch, however, it lasted but sixteen years, as shortly after the battle of Pharsalus, the Caesarian, of which more later, was adopted in its stead. As the dates on our coins run to twenty-nine they evidently cannot be based on the Pompeian era. Likewise, we cannot refer these dates to the Actian era, because, with dates running to twenty-nine as they do, our coins would interfere with the large issues of silver tetradrachms inaugurated by Augustus in the twenty-fourth year of that era.

The fifth and, next to the Seleucid, the most important system of reckoning time at Antioch was the Caesarian. This was based on the great battle of Pharsalus which took place in 48 B.C., though the first year was counted from the preceding autumn of 49 B.C. This era not only was used for dating the bronze municipal coinage of Antioch from the time of Caesar through that of Antoninus Pius (*B. M. Cat.*, Nos. 122-5), but was continued on inscriptions, edicts, &c., down to Byzantine times. Is it, then, possible to apply to this era the dates found on our curious series of tetradrachms? We now have no less than forty odd years at our disposal, because the first⁶ use of the Actian era on Antiochene coins occurred in 7 B.C., when the governor of Syria, Quinctilius Varus, caused to be struck a series of bronze coins for local purposes. These bear his name and the numerals **EK**,

⁶ This does not take into account a certain tetradrachm of Augustus, which seems to have been struck in the twelfth year of the Actian era or 20/19 B.C., see p. 110.

evidently of the Actian era or 7/6 B.C. Secondly, we have a large and prolific issue of municipal bronze coins, first appearing in the autumn of 47 B.C., bearing the undoubted Caesarian dates Γ, Δ, Η, Θ, ΑΙ, ΒΙ, ΘΙ, Κ, ΑΚ, ΕΚ, ΖΚ. The first thing that will impress the observer is the striking identity between this series of dates and the series as found upon the  tetradrachms. In view of what has gone before, this must be looked upon as something rather more than a mere coincidence. We must therefore recognize in our curious tetradrachms of pure Seleucid type, but of late and degenerate style, a municipal reissue of the Philip tetradrachm, but now bearing the monogram of the city and, in the exergue, dates reckoned according to the Caesarian era.

Perhaps some numismatists of the old school, at the mere suggestion of such an unorthodox treatment of coins bearing the supposed portrait and certainly the name and titles of the Seleucid king Philip Philadelphus, will still feel reluctant to accept the new attribution here proposed. How is it possible or even probable that Antioch, after becoming the capital of a Roman province and the residence of its governor, would be allowed to strike a series of silver coins bearing the types and name of a Seleucid prince long dead? For their benefit let us recapitulate. We start out with the following definite conclusions drawn directly from the coins themselves: (1) that the  series of Philip's coins forms a category by itself, (2) that their degenerate style shows them to have been struck later than the true Antiochene issues of that prince, (3) that our particular coins, because of their characteristic monogram, were struck in

Antioch, (4) that for stylistic reasons, for lack of space, and because of the dates they bear, they cannot have been struck before 64 B.C. or after 7 B.C., and (5) that these dates must be based on some local era, but that this era could not have been the Seleucid, the Aspendian, the Pompeian, or the Actian. The only possible room remaining for our tetradrachms in the closely following and compact ranks of silver issues, struck in Antioch from the reign of Seleucus II to the last days of Trebonianus Gallus, is the period from 64 to 7 B.C. It would, indeed, be a curious phenomenon if, for the duration of this interval of nearly sixty years, in the great and populous city of Antioch, second only to Alexandria in importance and wealth, the metropolis and capital of Syria, no silver tetradrachms should have been struck.⁷ On applying the dates Γ-ΘΚ found on our tetradrachms to the only remaining era known to have been used, namely the Caesarian, we find that these dates fall absolutely within the period of time at our disposal.

Our orthodox numismatist, in spite of the seemingly conclusive evidence that has thus far piled up in favour of the, to him, somewhat surprising date assigned to the $\text{X}\Gamma$ tetradrachms, may still hesitate and be inclined to deny all on the only ground now left for him. How, he will ask, is it conceivable that the people of Antioch, citizens of an "autonomous", "inviolable", and "sacrosanct" city, under Roman

⁷ Aside from certain issues of Roman denarii, which may or may not have been struck at Antioch, it is possible that Mark Antony, at the commencement of his Parthian campaign, caused the well-known tetradrachms bearing his and Cleopatra's portraits to have been issued from this mint, but even here authorities differ.

protection, should choose for the types of their silver coinage the "portrait" and the inscriptions of a long-dead king of a vanished dynasty? Furthermore, is it conceivable that the Roman government would permit the city of Antioch, in fact if not in name an integral portion of their empire, to strike silver coins with the portrait, the titles, and the types of one of its former kings? To answer these interesting and perfectly justifiable questions we must stop for a moment to consider the probable monetary conditions in Syria during the first century B.C. Philip, the last of the Seleucid kings ruling in Antioch, must have struck an enormous quantity of coin, because over twenty-four varieties have been described in the writer's recent monograph on this mint. Indeed, to-day Philip's tetradrachms easily remain the commonest of those of any of the Seleucid princes. It is also noticeable that these particular tetradrachms show a falling off in weight and certainly in the purity of their metal. Although there are no records at the writer's disposal, experience seems to show that Philip's tetradrachms seldom occur in hoards extensively mingled with those of his predecessors. In other words, his coinage, being lighter and of baser metal, soon drove out of circulation, according to a well-known law, the better coins of preceding rulers. The succeeding issues of the Armenian Tigranes appear to be of similar weight and metal to Philip's. Therefore, at about the time when Pompey reorganized the province of Syria, by far the greater bulk of the circulating silver money in Syria must have consisted of Philip's tetradrachms. These conditions lasted until Caesar arrived in Syria and, in his turn, reorganized

the province. But by now the circulating medium must have been in a deplorable state, and in great need of replenishment. We know that Caesar himself did not issue any of his own coin in this portion of the world. It is therefore probable that now, when a new coinage was the crying need to replace the old pieces worn by anything from twenty to forty years constant circulation, the types best known and most acceptable to the people were chosen. For it would, perhaps, be hardly meet for the Antiochene mint authorities to strike silver money of purely autonomous types, seeing that their city, though by solemn decree free and inviolate, was, nevertheless, the capital of a Roman province, the governor's residence, and the seat of his power. What objection, on the other hand, could there possibly have been against issuing coins in close imitation of those at this time most extensively in actual circulation, and known to all neighbouring peoples by forty years of constant use? Thus would their own commercial interests be best served, and, at the same time, no offence given to the ruling power. However, in place of the magistrate's monogram found on the old royal issue there was now substituted the monogram ΑΤ , thus designating in a fairly clear and definite manner that Antioch the Autonomous was the issuing authority for these new-old coins. This very same monogram appears again a little later as a badge of authority, not only on purely municipal bronze coins of local type (*B. M. Cat.*, No. 68), but also on the silver tetradrachms struck under joint imperial and municipal authority in the reign of Augustus. To the writer it would seem sufficiently clear that reasons of trade and commerce really dictated the

types chosen in the autumn of 47 B.C. for the silver coinage about to be struck at Antioch, a city which, next to Alexandria, was the greatest commercial centre of the eastern Mediterranean. As regards the Roman policy in thus countenancing a reissue of Seleucid tetradrachms, the words of Dr. Head apply with redoubled force for Antioch and the Syrian province. On p. 155 of his monograph, "The Coinage of Ephesus" (*Num. Chron.*, New Series, vol. xx, 1879), in speaking of the continuation of the cistophoric coinage under the Romans, he says: "In this reorganization the policy of the Romans was to conciliate the urban communities as being no less the centres of western civilization and commerce than bulwarks against the flood of Oriental barbarism." How well this would apply to Antioch, as the champion of Hellenism the farthest east, the centre of commerce in these regions, and the principal bulwark against the ever-present threat of Parthian invasion! Our tetradrachms were therefore struck under the same policy, by virtue of the same conditions, and for the same reasons as the large coinage of cistophori at Ephesus. The latter were but another type of royal coin, and if not actually bearing a royal portrait and a royal name (as our tetradrachms do), were, nevertheless, obviously part and parcel of the previous royal Pergamene régime. In spite of this their coinage was continued, with little let or hindrance, under direct Roman rule, from 133 B.C.—the date of the constitution of the province of Asia—down to imperial times. Similarly, and throughout the same period as our posthumous Philip coins, other cities, free and autonomous, but, like Antioch, integral portions of the Roman empire,

continued in seemingly perfect freedom to issue large quantities of silver money bearing purely local types and showing no signs of Roman suzerainty. The most important of these were cities like Athens, who coined her Athene tetradrachms down to the reign of Augustus (Head, p. 386, Class IV (β), *circa* 86 B.C. to Augustus), Tyre, who coined her Herakles and eagle tetradrachms and didrachms as late as A.D. 69/70 (*B. M. Cat.*, No. 245), and Aradus, who coined her Tyche tetradrachms down to 46/45 B.C. (*B. M. Cat.*, No. 291). We thus possess several clear-cut examples with which to meet any possible objections that might be raised against the new assignment on the somewhat superficial ground that the Romans would never have countenanced the reissue of a silver coin, bearing royal types, in the city of Antioch, the capital of their province of Syria and the actual residence of the Roman governor. There were, indeed, additional reasons that permitted the Roman government not only to countenance, but perhaps even to approve, the choice of certain well-known royal Seleucid types for the new coinage of the Syrian city. In the first place, the last important claimants to the throne of Seleucus, Philip II and another prince nicknamed Kybiosaktes by the Alexandrians, seem to have both disappeared or died about 58/56 B.C., and with them the direct line evidently became extinct for all practical purposes.* The fact that Antioch was striking coins in the name and with the types of a Seleucid prince would therefore be of as little importance politically as if Austria were to continue the issue of her Maria Theresa thalers

* Bevan, *loc. cit.*, vol. ii, p. 268.

for the African trade after the extinction of the House of Hapsburg. As we have considerable reason to believe that tetradrachms of the actual time of Philip Philadelphus were still current in Syria in the time of Julius Caesar, therefore the addition of new ones of the same general type would be of slight importance. Finally, it may have been quite acceptable to the Roman government that the coinage of these politically but not commercially obsolete coins should continue, rather than that the citizens of Antioch should choose types of greater local significance for their proposed silver coinage. This would have been a much greater evidence of and claim to an absolute autonomy which Antioch really possessed in name but not in fact.

Before proceeding to the detailed description and discussion of the Antiochene coinage of this period as a whole, it may be well to call the reader's attention to one more and undoubtedly determining piece of evidence in favour of the new date assigned to our particular variety of the Philip tetradrachms. One should compare the reverses of these coins with the reverse of the first tetradrachm struck by Augustus at Antioch in 20 B.C. (*Num. Chron.*, vol. xii, 1912, Pl. vii, No. 12. See our Pl. VII. b). A glance will suffice to show the absolute identity in style and details of type between the two series.⁹ The head of Zeus, his drapery, his throne, the figure of Nike, the technique of the inscriptions, are all extraordinarily alike. One could almost suppose that one artist had cut the respective dies. As the Augustan coin appeared in

⁹ The coin is dated 18 = twelfth year of the Actian era, or between September of 20 and September of 19 B.C.

20 B.C. it is inconceivable that the mint authorities of that year should go back over sixty years in choosing a model for their coin, for surely few, if any, of Philip's *own* coins could still be in general circulation at so late a date as this. Now it will no doubt be admitted by all that it was really the AT series of tetradrachms that had been used as a model for the Augustan issue; their similarity in style, technique, and type is far too close to suppose otherwise. If these coins had really been struck in the time of Philip there would be still less reason why they should have been chosen as a model instead of the better style coins of that king. The AT tetradrachms were taken as a model for the Augustus coin because, as we have already deduced for other reasons, they were of very recent issue and therefore still in general circulation. The new assignment of these interesting pieces now bridges the gulf between the real issues of Philip and those of the Roman emperor, and so does away with the otherwise astonishing lacuna in the long series of Antiochene silver coinages that appeared to exist between the respective reigns of Tigranes and of Augustus.


PERIOD I.

Issues of the years 47 to 45 B.C.

DENOMINATIONS.

a. TETRADRACHM.

Diademed and youthful head of king to r. Fillet border.

ΒΑΣΙΛΕΩΣ | ΦΙΛΙΠΠΟΥ |
on r. ΕΠΙΦΑΝΟΥΣ | ΦΙ-
ΛΑΔΕΛΦΟΥ on l. Zeus
enthroned to l., holds wreath-
bearing Nike in outstretched
right and sceptre in left.
Thunderbolt above. Beneath
throne, .¹⁹ The whole en-
circled by laurel wreath.

b. BRONZE (large size, 22 to 25 mm., grammes 10 to 14).



Laureate head of Zeus to r. Both filleted and dotted borders occur.

ΑΝΤΙΟΧΕΩΝ ΤΗΣ | ΜΗ-
ΤΡΟΠΟΛΕΩΣ | on r. ΙΕ-
ΡΑΣ ΚΑΙ ΑΣΥΛΟΥ | ΚΑΙ
ΑΥΤΟΝΟΜΟΥ on l. Zeus
Nikephoros, as on the tetra-
drachms, seated to l. Thun-
derbolt above. The whole
encircled by laurel wreath.

c. BRONZE (middle size, circa 18 mm., grammes 6 to 7).

Head of Zeus as on pre-
ceding. Circle of dots.

ΑΝΤΙΟΧΕΩΝ | ΤΗΣ | ΜΗ-
ΤΡΟΠΟΛΕΩΣ. Tyche,
standing to l., holds tiller
in right and cornucopiae in
left.

¹⁹ In publishing a variety of this coin in the *Num. Chron.*, 4th Series, vol. xii. p. 262, Rev. Edgar Rogers gives the monogram as . The monogram really is , as the supposed B is formed by the corner of Zeus's himation hanging down and touching the monogram. Nike also holds a wreath, as usual, but the clumsy cutting of the die has the effect of making the lower half of the wreath unduly large, and of causing the upper half to be lost in the encircling laurel wreath—thus producing the effect described by Dr. Rogers as a "ribboned palm".

d. BRONZE (small size, *circa* 18 (?) mm., weight ?).

Head of Artemis to r.,
bow and quiver at
shoulder.

ANTIOXEΩN TΗΣ ΜΗ-
ΤΡΟΠΟΛΕΩΣ. Apollo,
naked, standing to l., left arm
resting on column, holds
arrow in right.

Before Oct. 1st, 47 B.C.

1. TETRADRACHM (a). In l. field, XB .

Paris, No. 1549 l. xxvii. 15), grammes 15.40; Glasgow (Hunterian Coll.), No. 4, grammes 15.98, Pl. VI. 1; London, No. 5, grammes 15.75; Hirsch, Rhousopoulos Sale, May 1905, No. 4478, grammes 15.91.

Dated Γ = Oct. 1st, 47—Sept. 30th, 46 B.C.

2. TETRADRACHM (a). In l. field, AT .
In exergue, Γ .

Regio Museo di Torino, No. 4836, grammes 15.02.

3. BRONZE (b). Fillet border. In l. field, EAR OF CORN.
In exergue, Γ .

Newell Coll. (countermarked, Head of Apollo), grammes 18.80.

4. BRONZE (b). Dotted border. In l. field, ISIS HEAD-DRESS.
Beneath throne, Δ .
In exergue, Γ .

Newell Coll., grammes 10.15, Pl. VI. 2; London, No. 26 (Pl. xviii. 11) and No. 27 (countermarked, Head of Apollo).

5. BRONZE (b). Dotted border. In l. field, PALM-BRANCH.
In exergue, Γ .

Glasgow (Hunterian Coll.), No. 26, grammes 11.92; and No. 27, grammes 9.91.

6. BRONZE (c). In exergue, Γ .

Mionnet, No. 40; Vienna (Eckhel, vol. 3, p. 271). A specimen in the writer's collection, as well as one in London (No. 40), probably belongs here, but unfortunately the date is off the flan.

7. BRONZE (*d*).

In exergue, Γ.

Mionnet, No. 41. The writer has not seen a specimen of this variety, but would suggest its insertion here, provided Mionnet's description be correct.

Dated Δ = Oct. 1st, 46—Sept. 30th, 45 B.C.

8. TETRADRACHM (*a*).

In l. field, ~~Α~~.
In exergue, Δ.

Newell Coll., grammes 15-15, Pl. VI. 3; Glasgow (Hunterian Coll.), No. 13, grammes 14-25; Rev. E. Rogers (*Num. Chron.*, 4th Ser., vol. xii, Pl. xi. 7), grammes 14-97; Hirsch, Rhusopoulos Sale, May 1905, No. 4479, grammes 15-38; London, No. 8, grammes 14-47.

9. BRONZE (*b*).

In l. field, ISIS HEAD-DRESS.
In exergue, Δ.

Newell Coll., grammes 12-35; another (countermarked, Head of Apollo), grammes 11-17; Glasgow (Hunterian Coll.), No. 28, grammes 11-08; another (countermarked, Head of Apollo), No. 29, grammes 9-85; Yale University Coll., grammes 13-44.

10. BRONZE (*c*).

In exergue, Δ.

Newell Coll., grammes 5-79.

On the 5th of the Ides of Sextilis, 48 B.C., was fought the decisive and, for Pompey, disastrous battle of Pharsalia. Accompanied by the most devoted of his followers, Pompey fled hurriedly eastwards, and eluding, by the narrowest of margins, the pursuing ships, he finally reached Egypt only to be taken prisoner, killed, and his head delivered to Caesar on the latter's arrival. The months that followed found Caesar thoroughly involved in Egyptian affairs and even actually besieged in the royal palace at Alexandria. It was not until the early summer of 47 B.C. that conditions became settled enough for him to depart for Asia Minor. He stopped over a few days in Antioch (Caesar, *Bell. Alex.*, lxvi),

which were spent in the reorganization of the province. John Malalas, the Byzantine monk and antiquary of his native Antioch, states that on the 20th Artemision, or about May 20th, of that year the city was given its freedom by Julius Caesar in a solemn decree whose opening words ran as follows: 'Εν Ἀντιοχείᾳ τῇ μητροπόλει ἱερᾷ καὶ ἀσύλῳ καὶ αὐτονόμῳ καὶ ἀρχούσῃ καὶ προκαθημένῃ τῆς Ἀνατολῆς Ἰούλιος Καῖσαρ κτλ.




Very little time seems to have elapsed before the authorities in Antioch commenced to exercise the right of local coinage now allowed the city by virtue of the autonomy so recently decreed it. Silver tetradrachms and a fine series of three denominations in bronze inaugurated the reopening of the city's mint. It is interesting to observe that on the largest denomination in bronze the city's most important titles reappear in the exact order in which they occur on the above-mentioned edict of Julius Caesar. The types of these new coins reflect, as is only natural, the most popular of the Antiochene divinities. The types of the largest of the bronze coins are dedicated to Zeus Olympios and are to be traced back through the purely municipal issues of the first half of the century to the well-known commemorative tetradrachms of Antiochus IV Epiphanes.¹¹ On the obverse is seen the laureate head of the god, copied more or less faithfully from the great statue placed in the temple of Apollo at Daphne. On the reverse the god is represented, with Nike and sceptre, enthroned to left, with thunderbolt above and the proud inscription **ΑΝΤΙΟΧΕΩΝ ΤΗΣ ΜΗΤΡΟΠΟΛΕΩΣ ΤΗΣ ΙΕΡΑΣ ΚΑΙ ΑΣΥΛΟΥ ΚΑΙ ΑΥΤΟΝΟΜΟΥ**.


¹¹ See "The Seleucid Mint of Antioch", *loc. cit.*, pp. 28 ff.

The second denomination has for its obverse type a similar Zeus head, while the reverse is held by the standing Tyche of Antioch. She is depicted holding in her left arm the cornucopiae—symbolic not only of the fertility of Syria, but also of the city's own prosperity due to the wealth of Asia which now passed through her markets—and in her right hand the tiller—symbolic of Antioch's water-borne commerce which dispensed this wealth to all the markets of the world.

The third and smallest denomination gives us representations of the other great patron divinities of Antioch—Apollo, whose famous shrine lay just outside the walls in the grove of Daphne, and Artemis his sister. Because of lack of room the inscription on both the smaller denominations (*c* and *d*) is abbreviated to the first three words of the inscription on denomination *b*. In the exergues of all three denominations is found the date Γ, which is year 3 of the Caesarian or so-called Antiochene era, that is between Oct. 1st of 47 B.C. and Sept. 30th of 46 B.C. In the following year coins of the two largest denominations were again struck, bearing the same types and inscriptions but having Δ or year 4 of the above era in their exergues.

Running parallel with this bronze coinage we find also what we have seen must be a reissue of the silver tetradrachms of the Seleucid king Philip Philadelphus. We possess specimens bearing the two dates Γ and Δ as on the bronze issues and therefore to be dated between the first day of October, 47 B.C., and the last day of September, 45 B.C. These interesting pieces have been discussed at sufficient length in the introduction.

Closely similar to the two tetradrachms dated Γ and Δ is another [Pl. VI. 1] which, however, bears no date in the exergue and instead of the monogram  has the monogram  and, alongside of it, the letter Β. Because of its close similarity this tetradrachm cannot well be separated from Nos. 2 and 8. It is probable, therefore, that it served to introduce the series in question. The monogram and letter may be best explained as being composed of the letters ΑΥ for ΑΥτονομου and Β, the whole an abbreviation, perhaps, for the expression "year 2 of autonomy"—or some such formula. In other words, this variety was issued in the second Caesarian year between the arrival of Julius Caesar in Antioch and Oct. 1st of 47 B.C. when the third year commenced. In the immediately succeeding issue the fuller monogram  is given and the date numeral is relegated to the exergue.

In looking at these tetradrachms closely we become aware of an additional piece of evidence pointing to their late date. One of the commonest monograms, appearing usually beneath the throne, on the Antiochene issues of the later Seleucid kings is . The die-cutter of the present series reproduces this monogram from his model—a true coin of Philip Philadelphus—without, perhaps, quite understanding it. For, instead of placing it squarely between the throne legs as on his model, he has made it too large and has placed it too far to the left, thus completely crowding out the left-hand throne leg, and sometimes even the drawn-back right foot of Zeus. In this way the monogram, though faithfully introduced into the later copy, is made to do duty for three things at once: a monogram, a throne leg, and a god's foot!

This curious misapprehension on the part of the die-cutter of No. 1 is repeated on all the tetradrachms of the series and serves to show in what a stereotyped fashion they were produced. Such a proceeding would be quite inexplicable if the coins really belonged to the reign of the king whose names and types they bear. Only late copyists, labouring under a misapprehension, would be capable not only of committing such a blunder but of blindly reproducing it on all succeeding issues.

PERIOD II.

Issues of the years 42 to 39 B.C.


A.


DENOMINATIONS.

a. TETRADRACHM.

Exactly similar to preceding issue.


Exactly similar to preceding issue.

In l. field, .

Beneath throne, .

b. BRONZE (largest size, 25 to 29 mm., grammes circa 14-30 to 16).

Laureate head of Zeus to r. Circle of dots.

ANTIOXEΩN | THΣ MH-
TPO | ΠOΛEΩΣ KAI |
AYTONOMOY. Zeus
Nikephoros enthroned to l.
Thunderbolt above. In l.
field, . The whole en-
circled by laurel wreath.

Dated H = Oct. 1st, 42—Sept. 30th, 41 B.C.

11. TETRADRACHM (a).

In exergue, H.

Newell Coll., grammes 15-45, Pl. VI. 4; another, grammes 15-41.

12. BRONZE (*b*).

In exergue, H.

London, No. 29, No. 30, PL VI 5; No. 31; Glasgow (Hunterian Coll.), No. 30, grammes 15.10; Newell Coll., grammes 14.98; another, grammes 15.72; Yale University Coll., grammes 16.02; C. S. Bement Coll., grammes 14.36.

The assassination of Julius Caesar occurred on the Ides of March, 44 B.C. By the early summer of 42 B.C. Brutus, Cassius, and their friends were forced to retire eastwards before the growing power of Octavian and Antony. Cassius went directly to Syria, as Dio Cassius carefully informs us, 'because it excelled as a strategical position and in point of money and troops' and furthermore 'because its people were acquainted with him and friendly as a result of his campaign with Crassus'. Cassius succeeded in completely winning over the people and the legions stationed there, and, on sending a dispatch to the Senate concerning the situation in Syria, was confirmed by them in the governorship of that province. Towards the end of the summer he left with the reorganized army to rejoin Brutus in Asia Minor. His lieutenant, Q. Labienus, was sent on a mission to Orodes, the Parthian king, to secure his aid against the coalition. Before Labienus had quite succeeded in this quest the news of Philippi (Oct. 42 B.C.) and the deaths of both Brutus and Cassius reached him. For the moment, therefore, he bided his time. Antony, in the meanwhile, crossed over to Asia Minor to settle the affairs of the East. In due course he arrived in Syria, where he appointed Saxa to the governorship, and thence proceeded to Egypt (summer of 41 B.C.).

It is to the winter following Philippi and the summer of 41 B.C., the period of the reorganization

under Antony, that we must assign the next issue of coin at the mint of Antioch. The last issue we have seen had come to an end by Sept. 30th of 45 B.C. Between that time and Oct. 1st of 42, at the earliest, we have no evidence of any municipal coins having been struck in the Syrian metropolis.¹² Now a new issue, consisting of the silver tetradrachm as before and a large denomination (larger, in fact, than the previous large one of years Γ and Δ) in bronze, again appears—both varieties dated in the eighth (H) year of the Caesarian era, or between Oct. 1st, 42, and Sept. 30th, 41 B.C. There is little to observe of particular interest in this issue except, perhaps, that the only titles the city of Antioch now boasts are those of "Metropolis" and "Autonomous". The other two, namely, "Sacred" and "Inviolable", have been omitted—whether because of changed conditions due to the battle of Philippi and the subsequent reorganization of the province under Antony, or simply because of the otherwise overcrowded appearance and consequent illegibility of the inscription, would be difficult and probably futile at this time to decide.

¹² Laffranchi proposes (*Riv. It. di Num.*, xxx, 1917, pp. 246 ff.) to assign to Antioch certain aurei and denarii of Cassius for the year 42 B.C., coins which previous writers (Grueber, Bahrfeldt, and others) preferred to assign to Asia Minor. The new attribution would in no wise conflict with the coin issues which we are studying, both because they appeared in the preceding spring and summer, and because they are purely military in character and struck for military purposes. Our coins are purely municipal in character, and struck for local circulation.

B.

DENOMINATIONS.

- a. BRONZE (large size, *circa* 25 mm., grammes 11.50 to 12.70).

Laureate head of Zeus
to r. Fillet border.
Palm - branch behind
neck.

ANTIOXΕΩΝ | ΤΗΣ ΜΗ-
ΤΡΟΠΟΛΕΩΣ | ΚΑΙ ΑΥ-
ΤΟΝΟΜΟΥ. Zeus Nike-
phoros enthroned to l.
Thunderbolt above. Caps of
the Dioscuri, one in front,
the other behind Zeus. The
whole encircled by laurel
wreath.

- b. BRONZE (same size and denomination).

Exactly similar to pre-
ceding.

ANTIOXΕΩΝ | ΤΗΣ ΜΗ-
ΤΡΟΠΟ | ΛΕΩΣ ΤΗΣ
ΙΕΡΑΣ | ΚΑΙ ΑΣΥΛΟΥ.
Zeus as above. Thunderbolt
above. Caps of the Dios-
curi, the one in front of
Zeus, the other beneath
throne. The whole en-
circled by laurel wreath.

Dated ☉ = Oct. 1st, 41—Sept. 30th, 40 B.C.

13. BRONZE (a).

In exergue, ☉.

Newell Coll., grammes 12.00, Pl. VI. 6 (obverse); another,
grammes 12.67, Pl. VI. 6 (reverse); Yale University Coll.,
grammes 10.96 (worn).

Dated BOΛ = 40 B.C.

14. BRONZE (b).

In exergue, BOΛ.

Glasgow (Hunterian Coll.), No. 31, grammes 12.31,
Pl. VI. 7; London, No. 25; Newell Coll., grammes
11.76 (worn); Yale University Coll., grammes 12.15;
Regio Museo di Torino, No. 4949, grammes 11.42.

Labienus had elected to remain at the Parthian
court after receipt of the news of Philippi. As time

went on, however, and reports of Antony's entanglements in Egypt commenced to come through, he felt the opportunity for action had arrived. He soon persuaded Orodes to order an attack on the Syrian province. Accordingly Pacorus, the heir to the Parthian throne, with Labienus as his general, commenced the invasion. It did not take Labienus long to win over the Syrian legions who had previously been troops of Cassius, and after Philippi had been incorporated by Antony into his own legions and stationed in Syria because they were acquainted with the country. Antony's general was overcome in pitched battle and fled to Antioch. Apamea surrendered to Labienus, and her example was soon followed by Antioch, who, on finding herself abandoned by Saxa, made all haste to come to terms (Dio, xxv, 3 and 4). Pacorus and Labienus soon had made themselves masters of a large part of Cilicia, all of Syria, and all of Phoenicia except the stronghold of Tyre.

It was not until the summer of 39 B.C. that Antony undertook any serious attempt to regain his lost provinces. He then sent Ventidius, his general, with an army into Cilicia. Labienus was defeated and perished shortly afterwards. Ventidius then forced the passes of the Amanus and invaded Syria. Pacorus also fell in pitched battle and the Parthian forces were completely cleared out of the lands they had recently occupied.

The Antiochene issues of the Caesarian year 9 seem to fall entirely within this period of the Parthian invasion. As yet no tetradrachms have been recorded, but we have, on the other hand, an interesting issue of municipal bronze coins of which only one denomina-

tion was struck. On the obverse we should notice the reappearance of the fillet border in place of the dotted circle. Was this perhaps due to Parthian influence, this being the usual form of decoration occurring on Parthian tetradrachms? A real innovation, as new as it is ephemeral, is the presence, behind the head of Zeus, of the palm-branch—a plant not generally associated with that god. It is, nevertheless, a symbol of victory and undoubtedly refers here to the successes and the one important victory gained by Labienus and his Parthian allies over the army of Saxa. The reverse of our bronze coins continues the types and inscription of the previous year (H), except that the two caps of the Dioscuri, as magistrate's symbol, appear in the field. The quickly succeeding issue of the same denomination (No. 14) is most interesting. On the obverse we have the same fillet border and the palm-branch symbol of No. 13. On the reverse we again have the caps of the Dioscuri as magistrate's symbol, which, together with the unusual fillet border and the palm-branch, sufficiently proves Nos. 13 and 14 to have belonged to the same general issue. The inscription on the second coin, however, now omits the important title "Autonomous" and replaces it with "Sacred and Inviolate". Furthermore, in the exergue appears the Seleucid date **BOC** (Autumn, 41—Autumn, 40 B.C.) instead of the Caesarian date. The common use of the fillet border, the palm-branch, and the caps of the Dioscuri, in conjunction with both **H** (that is 41–40 B.C.) and **BOC** (also 41–40 B.C.) definitely proves, if proof be necessary, that numismatists have been absolutely correct in assigning the dates **Γ** to **ZK** on the Antiochene autonomous bronze

coinage to the Caesarian rather than to the Pompeian or the Actian eras. The surprising re-introduction of the long-discontinued Seleucid system of reckoning must be directly attributed to the Parthian invasion and the consequent influence of Parthian custom, which continued to employ the Seleucid era to the very end of the Arsacid dynasty. It is also interesting to note the fact (to which Dr. Macdonald in his *Catalogue of the Greek Coins in the Hunterian Collection*, vol. iii, p. 145, has already called attention) that the Seleucid system of reckoning also makes a sudden and equally ephemeral appearance this very year (BOC) in the municipal issues of Apamea. It was Apamea that first fell to Labienus and Pacorus early in 40 B.C. The close connexion between the appearance of these isolated Seleucid dates and the Parthian invasion of that year seems, therefore, very evident.

The absence of the title "Autonomous" on these Antiochene issues with Seleucid date may or may not be of significance. It is indeed very curious that this important and jealously prized title should suddenly be omitted from the city's coinage. Would *ιερός και άσύλον* quite compensate for the loss of *αὐτονομία*? The Parthian régime may have been quite willing to decree this important city and the centre of their newly acquired dominions in the west "Sacred and Inviolable", but hardly cared to weaken their uncertain hold by allowing it absolute autonomy.

As we have seen, no tetradrachms of this period have as yet turned up. Possibly the aurei and denarii which Labienus struck (supposedly at Antioch) by virtue of his self-assumed office of imperator and the powers that accompanied it, filled all needs for

coin of higher denomination than the bronze issues. Besides, a city deprived of autonomy (to judge by the inscriptions found on the **BOC** issue) would hardly have the right to strike silver coins of her own.

PERIOD III.

Issues for the years 39 to 37 B.C.

DENOMINATIONS.

a. TETRADRACHM.

Exactly similar to the previous issue of year 8 (H).	Exactly similar to the previous issue of year 8. In l. field, AT . Beneath throne, Δ .
------------------------------------------------------	------------------------------------------------------------------------------------------------------------

b. BRONZE (middle size, 18 to 20 mm., grammes 5 to 6.5).

Laureate head of Zeus to r. Circle of dots.	ANTIOXEΩN | MHTPO-ΠOΛEΩΣ | AYTONOMOY . Tripod from which rise three branches of laurel.
---------------------------------------------	------------------------------------------------------------------------------------------------

c. BRONZE (small size, 16 to 17 mm., grammes 3.20 to 3.80).

Head of Tyche to r. Circle of dots.	ANTIOXEΩN MHTPO-ΠOΛEΩΣ AYTONOMOY . Poppy flanked by two ears of corn; on either side of poppy, bunch of grapes.
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Dated **AI** = Oct. 1st, 39—Sept. 30th, 38 B.C.

15. BRONZE (b).

In field r., **CORNUCOPIAE**.
In exergue, **AI**.

Glasgow (Hunterian Coll.), No. 32, grammes 4.95; London, No. 36, Pl. VI. 8.

16. BRONZE (c).

In field beneath, **AI**.

Glasgow (Hunterian Coll.), No. 34, grammes 3.27, Pl. VI. 9; another, No. 35, grammes 3.82.

Dated **B1** = Oct. 1st, 38—Sept. 30th, 37 B. C.

17. **TETRADRACHM.**

In exergue, **B1**.

Newell Coll., grammes 15-42, **PL VI. 10**; Yale University Coll. (same obverse and reverse dies as my specimen), grammes 14-78.

18. **BRONZE (b).**

To left and right of type,
CORNUCOPIAE.

In exergue, **B1**.

Glasgow (Hunterian Coll.), No. 33, grammes 5-70; Yale University Coll., grammes 5-57.

19. **BRONZE (b).**

In field r., **WINGED CADUCEUS.**

In exergue, **B1**.

Newell Coll., grammes 6-44.

After the expulsion of the Parthian invader, the province of Syria seems to have enjoyed a few years of comparative quiet.

Instead of the large denominations in bronze that predominated in the previous issues, the present series consists only of the two smaller denominations. The types chosen are again very Antiochene in character, those on the larger coin being in honour of the two leading divinities of the city, Zeus and Apollo; those on the smaller in honour of the Tyche of Antioch, while the corn ears, the poppy, and the grapes symbolize the rich fertility of the surrounding district.

The style, fabric, low relief, and general appearance of these coins place them unmistakably in the period whose coinages we are studying. This point must be emphasized because to this period have also been assigned an entirely different series bearing the following dates, **IA** (Mionnet 46), **IF** (Mionnet 51), and **1Δ** (Mionnet 53 and London (inscription **Δ1**), No. 32).¹³

¹³ Similar coins, with **SI** and **ZI**, have been published by Mionnet (Nos. 54 and S. 21). As they are seemingly based only

These three varieties have for types, obverse, head of Zeus, reverse, Zeus Nikephoros enthroned to l. accompanied by the inscription, **ANTIOXEΩN | THΣ | MHTPOΠOΛEΩΣ**. Their generally thick dumpy fabric, their types, and their inscriptions all associate them more closely with the earlier municipal issues of Antioch which bear the Seleucid dates **AKΣ** to **ΣΛΣ** (*B. M. Cat.*, Nos. 12 to 24) than with the present issues dated by the Caesarian era. Furthermore, it is to be noted that in their dates the decimal cipher is generally placed *first*, while in the Caesarian series it is generally (there are a few rare exceptions to this order only in the year 10) placed *last*. Throughout our series the reverse type of the seated Zeus is always encircled by a laurel wreath, which ornament is not found either on the **AKΣ-ΣΛΣ** series or on the three coins mentioned above. For these reasons the writer would prefer to recognize in these pieces an issue of Antioch, as metropolis of Syria, for the years 55 to 50 B.C.—the dates being based on the Pompeian era. Only in this way can we explain the style of these three pieces, their early fabric, their types, and their dates. For if we should assume that their dates were to be reckoned according to the Caesarian era, then their issue must have taken place between the years 39 and 35 B.C. This, however, would result in an inextricable confusion of style, dates, weights, and, above all, types and inscriptions with our Nos. 15, 16, 18, and 19. As the latter pieces seem to be correctly located by style and inscription, the earlier date of the other pieces seems therefore assured.

on Sestini, and have not since been recorded in really trustworthy works, the accuracy of their reading is open to doubt.

PERIOD IV.

Issues of the years 31 to 27 B.C.

A. First Issue.

DENOMINATIONS.

- a. BRONZE (large size, 22 to 25 mm., grammes 10 to 14).

Laureate head of Zeus
to r. Circle of dots.

ΑΝΤΙΟΧΕΩΝ | ΤΗΣ | ΜΗ-
ΤΡΟΠΟΛΕΩΣ. Zeus Ni-
kephoros enthroned to l.
Thunderbolt above. In front
of Zeus, CORNUCOPIAE. The
whole encircled by laurel
wreath.

- b. BRONZE (middle size, circa 20 mm., grammes 8-60).

Laureate head of Zeus
to r. Circle of dots.

ΑΝΤΙΟΧΕΩΝ | ΤΗΣ | ΜΗ-
ΤΡΟΠΟΛΕΩΣ. Tyche
standing to l. holds tiller
in right and cornucopiae in
left. Thunderbolt above. The
whole encircled by laurel
wreath.

Dated ΘΙ = Oct. 1st, 31, to early in 30 B.C.

20. BRONZE (a).

In exergue, ΘΙ.

London, No. 34, Pl. VII. 1; another, No. 35 (countermarked, Head of Apollo); Glasgow (Hunterian Coll.), No. 37, grammes 11.02; another, No. 38 (countermarked, Head of Apollo), grammes 11.96; another, No. 39, grammes 12.15; Newell Coll., grammes 13.98; another, grammes 10.97.

21. BRONZE (a).

In exergue, ΙΘ.

London, No. 33; another, No. 35 (countermarked, Head of Apollo); Glasgow (Hunterian Coll.), No. 36, grammes 11.89; Newell Coll., grammes 10.24; another (countermarked, Head of Apollo), grammes 11.90; another, grammes 11.72, Pl. VII. 2; Yale University Coll., grammes 10.72.

22. BRONZE (b).

In exergue, ΙΘ.

C. S. Bement Coll., grammes 8.62, Pl. VII. 3.

By the great battle of Actium (Sept. 2nd, 31 B.C.) the future rule of the entire Roman world became definitely assured to Octavian. The months following the victory the young Caesar spent in the East consolidating his power and pacifying the countries now come under his direct supervision.

It is certainly to this period that the above coins belong. The date they bear shows their issue to have taken place after Oct. 1st, 31 B.C., and therefore after the battle of Actium. With the types we are well acquainted. There has been little change since the previous issue of these denominations, except that the title given to Antioch on the present pieces is only that of Metropolis. Was the position of Antioch under the new régime at first not quite assured enough to allow her the title of autonomy?

It is noticeable that upon the majority of the extant specimens of the larger denomination of this issue there is found counterstamped a small bust of Apollo with laurel wreath and quiver. Under the following coins the reasons for this counterstamp will be discussed.

A. Second issue.

DENOMINATIONS.

a. TETRADRACHM.

Exactly similar to the issue of Period III.

Exactly similar to the issue of Period III except that the throne leg has always the form $\frac{1}{2}$.

In 1. field, \star .

Beneath throne, Δ .

D. BRONZE (large size reduced, 20 mm., grammes *circa* 7 to 8).

Laureate head of Zeus
r. as on preceding issue.
Circle of dots.

ANTIOXΕΩΝ | ΜΗΤΡΟ-
ΠΟΛΕΩΣ | ΑΥΤΟΝΟ-
ΜΟΥ. Zeus enthroned to
l. as on preceding issue.
Throne leg has henceforth
the form $\frac{1}{4}$.

In l. field, EAR OF CORN.
The whole encircled by laurel
wreath.

Dated \odot ! = some time previous to Sept. 30th, 30th B. C.

23. TETRADRACHM (a). In exergue, \odot !.

London, No. 6, grammes 14.89; Paris, No. 1541, grammes 15.05; Leake Coll., grammes 14.21; Newell Coll., grammes 14.99, PL VII. 4; C. S. Bement Coll., grammes 15.58.

24. BRONZE (b). In exergue, \odot !.

Newell Coll., grammes 8.15, PL VII. 5.

Before the close of the nineteenth Caesarian year Antioch had regained her formerly privileged position and once more was allowed the title of "Autonomous", as both the inscription of No. 24 and the mere presence of a silver coinage would show.

An interesting feature of the tetradrachms and of the bronze belonging to the second issue of year 19 is the changed form of the throne leg. Henceforth it is always to have the form $\frac{1}{4}$ instead of the previous $\frac{3}{4}$. As far as the tetradrachms are concerned this detail proves itself very useful. For it enables us to distinguish the coins (which are struck on so small a planchet that the date in the exergue is often missing) struck after this date from the preceding issues. Furthermore, the fact that this sudden change in the form of the throne leg takes place on both the silver tetradrachm and the bronze of reduced weight—both

bearing the Caesarian date Θ 1—proves, beyond all reasonable doubt, that these curious tetradrachms of revived Seleucid type must belong to the period assigned to them in this article.

The continuance of the same types on the bronze pieces of this issue, while they are reduced in size and weight, may account for the appearance of the Apollo counterstamp on so many of the large bronze pieces of preceding issues. Particularly common is this counterstamp on the Nos. 20 and 21 which we have assigned to the first part of the year 19. As in the last issue of this year, as well as in the issues of the two succeeding years, the weight of the bronze piece has been materially reduced but the types retained (except in the inscription not easily distinguished by a rapid or superficial glance); the Apollo counterstamp may well have been impressed on all the earlier and heavier coins of this denomination still in circulation to equalize their current value with the newly issued but lighter pieces. The reason for the choice of the Apollo head is obviously attributable to the predominating influence this divinity enjoyed at Antioch. Furthermore, as the counterstamping seems to have been done not earlier than the commencement of 30 B.C., the suggestion lies to hand that the choice of this particular god may also have been somewhat influenced by a recent important event, the battle of Actium. It is well known that Apollo was especially favoured by Octavian, particularly after Actium, the happy outcome of which was attributed by him directly to the goodwill of Actian Apollo.

B.

Dated K = Oct. 1st, 30—Sept. 30th, 29 B.C.

25. TETRADRACHM (*a*). In exergue, K.
Paris, No. 1542, grammes 14.45.
26. BRONZE (*b*). In l. field, CORNUCOPIAE.
In exergue, K.
Yale University Coll., grammes 6.82, Pl. VII. 6.
27. BRONZE (*b*). In l. field, ISIS HEAD-DRESS.
In exergue, K.
Yale University Coll., grammes 8.50.
28. BRONZE (*b*). In l. field, WINGED CADUCEUS.
In exergue, K.
Yale University Coll., grammes 7.85; Regio Museo di Torino, No. 4951 (symbol uncertain), grammes 7.90.

Dated AK = Oct. 1st, 29—Sept. 30th, 28 B.C.

29. TETRADRACHM (*a*). In exergue, AK.
London (acquired 1909), grammes 14.93; Newell Coll. (the date on this specimen might also read ΔK), grammes 14.92; Amer. Numis. Soc., grammes 14.54. There is said to exist a variety of this piece with the monogram **R** instead of **AT**, and the date KA in the exergue (Mionnet, No. 913; Paris, No. 1543). A cast of a similar specimen in the Rev. Dr. Rogers's collection, very kindly forwarded by the owner, proves the supposed date KA to be really **KAP**. This variety therefore falls out from the dated series, although its style proves the coin to have been struck (in Antioch?) at about the same period as our Nos. 1 and 2.
30. BRONZE (*b*). In l. field, WINGED CADUCEUS.
In exergue, AK.
Newell Coll., grammes 7.62.
31. BRONZE (*b*). In l. field, EAR OF CORN.
In exergue, AK.
Glasgow (Hunterian Coll.), No. 49, grammes 8.49 (Pl. lxxi. 34), Pl. VII. 7.

Dated BK = Oct. 1st, 28—Sept. 30th, 27 B.C.

32. TETRADRACHM (a). In exergue, BK.

Paris, No. 1544, grammes 15.00; H. R. Drowne Coll.

With Octavian firmly established in power and every possible rival finally eliminated, the disturbed conditions of the civil wars came to an end and the Roman world entered upon a period of peace and prosperity. No centre of civilization could have prospered more by this happy state of affairs than Antioch. This is perhaps, to a certain extent, reflected by her coinage, which from the nineteenth Caesarian year commences to appear in a more orderly and continued sequence than at any previous time during the civil wars.

Sig. Laffranchi has recently, in the *Rivista Italiana di Numismatica* (vol. xxx, 1917, 247 ff.), attributed to the mint at Antioch a large series of Roman aurei and denarii of Cassius, Labienus, and Mark Antony covering the period 42 to 30 B.C. If his conclusions prove well founded and are generally accepted, it would in no wise affect the dating or attribution of our municipal silver and bronze coins, as the Roman pieces with their Latin inscriptions were not struck primarily for use by the local population, but for Roman governmental purposes and for the pay of the legions actually stationed here or being raised here. This certainly leaves our bronze coins entirely out of consideration. With regard to the silver tetradrachms it is interesting to see that every known date, with the exception of BI, falls in years to which Sig. Laffranchi was unable to assign any of the purely Roman issues. Thus the series of lacunae in our line



of tetradrachm dates is largely accounted for. With the coming of Octavian no more Roman coins, for a period of ten years, are assignable to Antioch, but instead the tetradrachms commence to appear yearly.

PERIOD V.

Issues of the years 26 to 20 B.C.

DENOMINATIONS.

a. TETRADRACHM.

Exactly similar to the issues of Period IV.	Exactly similar to the issues of Period IV. In l. field,  . Beneath throne,  .
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b. BRONZE (middle size, 15 to 18 mm., grammes *circa* 4-50 to 5-50).

Veiled and turreted head of Tyche to r. Circle of dots.	ANTIOXEΩN MHTPO- ΠOΛEΩΣ AYTONO- MOY. Tripod from which rise three branches of laurel. The whole encircled by laurel wreath.
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c. BRONZE (middle size, 15 to 18 mm., grammes *circa* 5 to 5-50).

Laureate head of Zeus to r. Circle of dots.	ANTIOXEΩN MHTPO- ΠOΛEΩΣ AYTONO- MOY. Tripod from which rise three branches of laurel. The whole encircled by laurel wreath.
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d. BRONZE (small size, 12 to 15 mm., grammes 2-50 to 3).

Veiled and turreted head of Tyche to r. Circle of dots.	ANTIOXEΩN AYTONO- MOY. Tyche, standing to l., holds tiller in r. and cornucopias in l. The whole encircled by laurel wreath.
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Dated KΔ = Oct. 1st, 26—Sept. 30th, 25 B.C.

33. TETRADRACHM (a).

In exergue, KΔ.

Paris, No. 1545, grammes 14-40; Leake, grammes 14-37.

Dated **EK** = Oct. 1st, 25—Sept. 30th, 24 B.C.

34. BRONZE (*b*). On l. and r. of type, **E-K**.
 Glasgow (Hunterian Coll.), No. 40, grammes 4-34; London,
 No. 37; Newell Coll., grammes 5-59, **Pl. VII. 8**.
 35. BRONZE (*d*). In field beneath, **EK**.
 Glasgow (Hunterian Coll.), No. 43, grammes 2-95.

Dated **SK** = Oct. 1st, 24—Sept. 30, 23 B.C.

36. TETRADRACHM (*a*). In exergue, **SK**.
 Rev. E. Rogers's Coll., grammes 14-87, **Pl. VII. 9**.

Dated **ZK** = Oct. 1st, 23—Sept. 30th, 22 B.C.

37. TETRADRACHM (*a*). In l. field, beneath mono-
 gram, pellet.
 In exergue, **ZK**.
 Newell Coll., grammes 14-15.

38. BRONZE (*b*). On l. and r. of type, **Z-K**.
 Glasgow (Hunterian Coll.), No. 41, grammes 5-31; No. 42,
 grammes 5-25 (**Pl. lxxi. 33**); London, Nos. 38 and 39; Newell
 Coll., grammes 5-38, **Pl. VII. 10**; Regio Museo di Torino,
 No. 4952, grammes 3-94.

39. BRONZE (*d*). In field beneath, **ZK**.
 Glasgow (Hunterian Coll.), No. 44, grammes 2-58.

40. BRONZE (*c*). In exergue, **ZK**.
 Glasgow (Hunterian Coll.), No. 45, grammes 5-28; No. 46,
 grammes 5-41 (**Pl. lxxi. 33**), **Pl. VII. 11**.

Dated **HK** = Oct. 1st, 22—Sept. 30th, 21 B.C.

41. TETRADRACHM (*a*). In exergue, **HK**.
 Newell Coll., grammes 14-68.

Dated **OK** = Oct. 1st, 21—Sept. 30th, 20 B.C.

42. TETRADRACHM (*a*). In exergue, **OK**.
 Harvard University Coll.; Newell Coll., grammes 13-95,
Pl. VII. 12; Leake, grammes 13-83.

As in the history of Antioch itself at this time there is little of special note to remark concerning its coinage. The coinage of posthumous Philip tetradrachms continues with little interruption; such gaps as exist (**FK** and **EK**) will probably be filled by future finds. The coinage of the large bronze denomination has ceased entirely, but, on the other hand, in both the years 25 and 27 a middle and a small denomination is once more coined. During the course of the year 27 there appears a second issue of the middle denomination with the obverse type changed from a bust of Tyche to a Zeus head, the reverse type of the tripod remaining the same.

With the tetradrachm dated **OK** the issue of these curious and interesting coins comes temporarily to an end. The year commencing in the autumn of 20 B.C. sees the issue of a new variety of tetradrachm [**Pl. VII. b**] bearing on the obverse the familiar and handsome features of Augustus, in the place of those of the long-dead Philip. The inscription reads **ΣΕΒΑΣΤΟΥ Π** **ΙΒ**, which has naturally been taken to indicate that the coin was struck in the twelfth consulate of Augustus (7-6 B.C.).¹⁴ Of the word **ΥΠΑΤΟΥ** only the first two letters (in monogram) now remain. The numeral **ΙΒ**, however, cannot possibly be considered as going with the word **ΥΠΑΤΟΥ**, as it is placed sideways beneath the chin of Augustus instead of alongside that word, where there would have been ample room. It is evident that if **ΙΒ** does not indicate the twelfth consulship of Augustus it can only indicate the twelfth year of the Actian era, which ran from the autumn

¹⁴ Pick, *Zeitschr. f. Num.*, xiv, p. 310; *Num. Chron.*, 4th Series, vol. xii, p. 147.

of 20 to the autumn of 19 B.C.¹⁵ In other words, this tetradrachm immediately follows the posthumous Philip tetradrachm of the twenty-ninth Caesarian year. The very close connexion in time between their respective issues is finally proved by a comparison of the reverses of the two pieces in question. The Zeus figure on both is extraordinarily alike, so much so, in fact, that one might almost suppose them to have been cut by the same engraver. The now absurdly anachronistic legend ΒΑΣΙΛΕΩΣ ΦΙΛΙΠΠΟΥ ΕΠΙΦΑΝΟΥΣ ΦΙΛΑΔΕΛΦΟΥ is replaced by the more timely ΚΑΙΣΑΡΟΣ ΘΕΟΥ ΥΙΟΥ, the well-known titles of Augustus. The application of the numeral IB to the Actian era, instead of considering them as belonging to the word ΥΠΑΤΟΥ, results in placing the date of this Augustan tetradrachm between September of the year 20 B.C. and September of 19 B.C. Immediately, this brings the coin in closest conjunction with Augustus's second visit to Syria. Having returned to Rome after arranging the affairs of Asia, in consequence of his great victory at Actium, Augustus remained in the West until the year 22 B.C., when, as we learn from Dio (liv. 6. 1), he "went to Sicily in order to settle affairs in that island and elsewhere as far as Syria". In the following year he crossed over into Greece (liv. 7. 4), and "in the spring of the year when Marcus Apuleius and Publius Silius were consuls (20 B.C.) he went into Asia and settled everything there and in

¹⁵ This Sig. Laffranchi evidently implies when, in the course of his article mentioned above, he says of this particular coin (p. 255), "appartenente verosimilmente all' anno 21 a. C.". He seems, however, to have made mistake of one year in reckoning his dates.

Bithynia". Thus he could hardly have reached Syria (liv. 7. 6) until towards the autumn of that year. As our Augustan tetradrachm was not struck until September of 20 B.C., at the earliest, we may logically and presumably attribute its appearance, and the important change of types it embodies, to the emperor's visit to Antioch and the desire of the city to compliment him by placing his portrait on her coinage on that occasion. We are also led to infer, from a further consideration of this coinage, that on the occasion of the emperor's visit to Antioch the Actian system of reckoning dates was adopted in his honour and the Caesarian system, at least temporarily, suspended.

Before leaving the new assignment of the **Α** series of Philip tetradrachms to the consideration of his older colleagues abroad, the writer would draw attention to an observation that may now be made—the entire material of this period, at present available, being placed before us—that the known specimens of our tetradrachms seem to fall only in the years and at the times when the municipal bronze issues of Antioch bear the title "Autonomous". Whenever this title is omitted no tetradrachms of that period are known. To be sure, future finds may make it necessary to modify this observation, but for the present it would seem to hold good. The obvious inference lies to hand that only when the city legally bore the title of "Autonomous" did she possess the time-honoured right of autonomy—the right to issue silver money.

Circumstances had indeed dictated the writer's intention of closing this article with the Augustan coin just described, thus leaving untouched the only remaining gap in the Antiochene silver coinage which

apparently exists between the years 20/19 and 7/6 B.C. To this period of time it has hitherto been impossible to assign any coins. While actually engaged in reading the final proof there was brought to the writer another and important specimen of what may be termed the posthumous Philip series. This new coin is exactly similar in all details to the ones described above under Nos. 41 and 42, except that in this case the exergual date clearly reads $\Gamma\Lambda$. This tetradrachm therefore shows that the Augustan piece was evidently more in the nature of a commemorative issue, probably only struck during the emperor's visit to Antioch, and that after his departure the old Seleucid type was once more revived. The unexpected appearance of the $\Gamma\Lambda$ specimen leads one to infer that other tetradrachms with late dates may eventually turn up to assist in filling the above-mentioned lacuna. These, including the new date $\Gamma\Lambda$ (= the 33rd Caesar-year, or 17/16 B.C.), will then represent the final portion of the pre-imperial coinage of Roman Antioch. They were superseded in 7/6 B.C. by the well-known tetradrachms of Augustus bearing the reverse type of the seated Tyche of Antioch. At this time that great city became a truly imperial mint and one of the most important in the Roman Empire. Henceforth her silver issues always bear an imperial portrait, while her bronze issues no longer display the proud title "Autonomous".

E. T. NEWELL.

VII.

THE ROMAN MONETARY SYSTEM.

PART II.

§ 10. *The Augustan System.*

IN the preceding section¹ we considered the constitution of the orichalcum and copper factors of the Augustan system. With respect to the more precious metals Pliny's statement that, in the time of Augustus, the *aureus* was struck at $\frac{1}{48}$ of a pound (= 120.3 grs.) and the *denarius* at $\frac{1}{84}$ (= 60.15 grs.) is pretty generally accepted.

If, however, as may reasonably be supposed, the weight of each *aureus* and *denarius* was tested separately, it appears probable that the normal standard of the coins was 7 and $3\frac{1}{2}$ scripula respectively, or 122.7 and 61.39 grs., which approximates fairly closely to Pliny's $\frac{1}{48}$ and $\frac{1}{84}$. This standard remained unchanged from B.C. 14 to A.D. 63.

That the *denarius* of Augustus was issued normally at 20 siliquae (= 58.4 grs.), as has been suggested, which implies, moreover, that the weight of the *aureus* would be 40 siliquae (= 116.8 grs.), is obviously too low an estimate. The gold coins of the early Empire are remarkably consistent in their weight and considerable care appears to have been taken to ensure accuracy in this respect. Moreover, the average weight

¹ *Num. Chron.*, 1918, pp. 155-86.

of the coins certainly indicates a rather heavier standard; thus six finely preserved *aurei* of Augustus give an average of 121.35 grs., and seventeen equally fine *denarii*, issued after B.C. 20, an average of 59.8 grs. The normal weight, as a general rule, may be expected to be slightly in excess of the average; therefore there appears some justification for the conclusion that the *aureus* and *denarius* of Augustus weighed respectively 7 and $3\frac{1}{2}$ scripula.

The ratio of gold to silver was thus 12.5 to 1.

The metal composing the *denarii* of Augustus is, as regards quality, the finest that occurs under the Empire: J. Hammer's analysis showing as high a proportion as 0.99 of pure silver.²

The monetary system instituted by Augustus, comprising eight denominations which formed the basis of the Roman coinage down to the time of Gallienus, may be summarized as follows:—

		Normal Weights.			
Gold	{ Aureus	7	scripula = 122.7	grs. = 7.96	gms. ✓
	{ Quinarius aureus	$3\frac{1}{2}$	" = 61.39	" = 3.98	" ✓
Silver	{ Denarius	$3\frac{1}{2}$	" = 61.39	" = 3.98	" ✓
	{ Quinarius argenteus	$1\frac{3}{4}$	" = 30.69	" = 1.98	" ✓
Orichalcum	{ Sestertius	24	" = 421.0	" = 27.25	"
	{ Dupondius	12	" = 210.5	" = 13.6	"
Copper	{ As	10	" = 175.5	" = 11.3	"
	{ Quadrans	$2\frac{1}{2}$	" = 44.0	" = 2.9	"

§ 11. *Changes in the Augustan System.*

We now pass on to notice the changes that occurred in the course of this period of over two and a half centuries and the various attempts, made from time to time, to readjust the coinage in order to stave off the inevitable disintegration of the system.

² "Der Feingehalt der griechischen und römischen Münzen" *Zeit. für Num.*, 1907, vol. xvi, p. 95.

These changes are mainly of three kinds: (1) the addition of new denominations or new forms of existing denominations, the duration of their currency being in some cases limited to a few years, while in others it is extended to nearly a century; (2) the temporary or permanent discontinuance of certain denominations; (3) the tendency towards depreciation, which is especially conspicuous in the third century, by the reduction in the weight of the gold and bronze and by the increase of the alloy in the silver.

It may be stated generally that throughout this period gold and silver *quinarii* appear to have been issued somewhat irregularly and never in very large quantities. This also applies to some extent to the smaller denominations of orichalcum and copper.

The first new species of coin, in addition to the four senatorial denominations of Augustus, was introduced by the moneyers, P. Lurius Agrippa, M. Maecilius Tullus, and M. Salvius Otho, who appear to have held joint office as triumviri in B.C. 5. Besides *dupondii* and *asses* of the usual types, these moneyers issued a series of coins of larger module bearing on the obverse the striking device of the head of Augustus crowned by a full-length figure of Victory.

These coins, which have been variously described as *sestertii* by Mr. Grueber,³ as "triumphal" *asses* by Willers and Laffranchi,⁴ or as *dupondii* by Mr. Walters,⁵ appear to have been issued at a weight standard of normally about 350 grs.⁶

³ *Num. Chron.*, 1904, p. 232.

⁴ *Riv. it.*, 1914, p. 327.

⁵ *Num. Chron.*, 1915, p. 326.

⁶ Actual weights of specimens are (in grains): P. Agrippa, 271.0; M. Tullus, 381.3, 360.6; M. Otho, 330.5, 275.4, 258.0.

The metal of which they are composed is apparently pure, or almost pure, copper—a fact that in itself entirely disposes of the view that the coins are *sestertii*. On the other hand, their weight demonstrates clearly that they cannot be *asses*. Thus there seems little reason to doubt that we are justified in accepting Mr. Walters's suggestion that these remarkable coins are copper *dupondii*.

It seems to have been the unwritten rule in early days that the emperor's portrait was placed on no senatorial coin other than the *as*, and this rule was observed until about the year A.D. 22. These unusual coins struck by the moneyers of B.C. 5, therefore, form the only exceptions; and their issue must be regarded as extraordinary, since it establishes no precedent and was of brief duration.

Of more importance, on account of its greater permanence as a factor of the monetary system, was the introduction of the brass (orichalcum) *semis*. This denomination was not issued by any of the moneyers who controlled the senatorial mint down to A.C. 3, but appears in the following year at the provincial mint of Lugdunum.⁷ Its introduction under the auspices of the emperor, or the Concilium Galliarum, was possibly with a view to improving the scheme of the brass and copper coinage, by bringing the denominational values into more regular sequence. Thus the provincial coinage of Lugdunum, consisting of *sestertius*, *dupondius*, *as*, and *semis*, represented in terms of the *as*, 4, 2, 1, and $\frac{1}{2}$, as contrasted with the senatorial *sestertius*, *dupondius*, *as*, and *quadrans* or 4, 2, 1, and $\frac{1}{4}$.

⁷ Cf. "The Mint of Lugdunum", *Num. Chron.*, 1917, p. 74.

Although the Lugdunum sequence has much to commend it from a practical point of view, it does not appear to have been adopted by the Roman mint, and the *semis* finds no place in the senatorial coinage until it is included in the elaborate reform of Nero, A.D. 63.

The orichalcum, or brass, *semisses* of Augustus and Tiberius bear but one reverse type, namely that of the *Altar of Lugdunum*, and their issue ceases about the year A.D. 21, when the provincial mint of Lugdunum was closed for the issue of brass and copper.

Two modifications of the Augustan system occur during the reign of Tiberius: (1) the copper *quadrantes* were discontinued, and (2) *dupondii* were issued according to two standards of weight.

The former calls for little comment, since the issue of small copper money fluctuates considerably under the earlier emperors. But this somewhat curious feature respecting the weight of the *dupondius* undoubtedly has an important bearing on the monetary principles of the period.

There is practically no question that the weight of the *dupondius*, as originally determined under Augustus, was half an ounce (210.5 grs.). The senatorial *dupondii* of the moneyers (B.C. 18-3), though subject to a good deal of variation, work out at this amount on the aggregate, and the imperial *dupondii* of Lugdunum (B.C. 2-A.D. 21) correspond fairly consistently with this weight. About the year A.D. 22, however, we find *dupondii* issued at a heavier standard of about 250 grs.⁵ These heavier coins did not supersede the lighter ones, but were issued along with them. More-

⁵ Specimens not infrequently weigh as much as 280 grs.

over, they present no distinction in type, so that we find many examples of *dupondii*, identical as regards type and legend, issued at both weights (e.g. *dupondii* of Antonia, Nero et Drusus Caesares, &c.).

It is perhaps obvious to raise the question whether this variation in weight may not be the result of mere accident or inaccuracy in casting the flans. It is well known that Roman coin-weights were frequently erratic, but, in the case of the *dupondii* of this period, the tendency to exceed half an ounce is in many specimens so marked that it appears practically certain that they were intended to conform to a heavier standard. On the other hand, the lighter *dupondii* generally fall short of half an ounce.

This feature is unmistakable in the *dupondii* issued during the latter part of Tiberius's reign and during the reigns of Caligula and Claudius. It is not without significance too that, under the last two emperors, the *sestertius* weighs almost invariably more than an ounce, and frequently as much as 470 grs.; whereas, throughout the period, there is no corresponding appreciation in the weight of the *as*.

Taking these points in connexion with one another it seems possible to arrive at some explanation of the increase in the weight of the *dupondius*. It has already been pointed out that orichalcum was reckoned in currency at about one and two-thirds the value of copper.³ This certainly appears to have been the ratio between the two metals at the time that orichalcum coins were introduced by Augustus, so that the *dupondius* of orichalcum, weighing 210.5 grs., was

³ Cf. "The Roman Monetary System", Part I, *Num. Chron.*, 1918, pp. 182 ff.

twice the value of the copper *as*, weighing 175.5 grs. That is to say, the *dupondius* was one-fifth heavier than the *as*.

Under Caligula and Claudius the component factors of orichalcum, *i.e.* copper and zinc, occur in almost exact proportions of 4 to 1, thus producing orichalcum of the finest quality.¹⁰ But what was the result? Evidently that the intrinsic value of orichalcum relatively to that of pure copper was found not to be as great as that assigned to it by Augustus. Consequently it became necessary to add weight to the alloyed coins in order to preserve the standard of the *as*.

Although this hypothesis accounts for the issue of the heavier *dupondii*, it does not explain the persistence in certain cases of the older half-ounce standard. It is probable, however, that the commercial value of orichalcum tended to fluctuate so that in the issue of light *dupondii* we may discern sundry attempts—apparently unsuccessful—to maintain it at its original status. Further, we may well imagine that this shifting of the ratio between orichalcum and copper goes some way towards explaining why no orichalcum coins were struck during the earlier part of Nero's reign, and why in the year A.D. 63 the senatorial coinage was entirely readjusted on an orichalcum basis.

In attempting to discover the normal or theoretical weight of the heavy *dupondius*, issued between A.D. 22 and 54, a difficulty arises from the fact that we possess no independent evidence as to the extent to which orichalcum had depreciated in relation to copper.

¹⁰ See Appendix, Table II, abridged from Hammer's analysis.

We depend mainly, therefore, on the average weight of the coins. This, as we have stated, works out at about 250 grs., which indicates that the ratio between the metals stood at about one and one-third to one. That is to say, since the two *asses* of copper weighed 350 grs., it follows that an equivalent value of orichalcum would weigh 252.5 grs., or one-twentieth of a Roman pound, which was not improbably the normal weight of the heavy *dupondius*.

On the other hand, we cannot overlook the possibility that the weight of these coins may not have been definitely fixed; and, provided they contained a greater amount of orichalcum than the *dupondii* of the Augustan standard, their precise weight may have been left to the caprice or discretion of the coiners.

§ 12. *The Neronian Reform*, A.D. 63.¹¹

During the first nine years of Nero's reign a somewhat unusual state of affairs prevailed in connexion with the Roman mint, inasmuch as the issue of gold and silver, which since the time of Augustus had belonged exclusively to the imperial mint, was now relegated to the senatorial.¹² It seems probable, moreover, that no coins of orichalcum or copper were issued

¹¹ Having attempted to deal with various aspects of Nero's coinage and the important reform of A.D. 63 in the *Nom. Chron.*, 1916, pp. 13-36, I shall not repeat what I have already said further than is necessary to make the subject intelligible. There are, however, one or two supplementary points to which I wish more particularly to call attention in the present section.

¹² This seems a fair inference from the invariable occurrence of **EX.S.C** on the *aurei* and *denarii* issued A.D. 54-63. However, Mr. Mattingly has suggested a somewhat different explanation. (See "Mints of the Early Empire" in *Journ. Rom. Studies*, vol. vii.)

prior to the year A.D. 60; and it is not until after the reform of A.D. 63 that the great Neronian coinage in these metals really begins.

This temporary closing of the senatorial mint for the issue of brass and copper coins was not without precedent in the monetary history of Rome. From B.C. 82 to 23 there had been an almost total cessation of the bronze coinage, and a similar lacuna had occurred between B.C. 3 and A.D. 11.

Down to the year A.D. 63 the gold and silver coins were maintained at about the same standard of weight and purity as that adopted in B.C. 15. But in A.D. 63 Nero reduced the weight of the *aureus* to $6\frac{1}{2}$ scripula (113.75 grs.) and that of the *denarius* to 3 scripula (52.64 grs.), or respectively to $\frac{1}{2}$ and $\frac{1}{8}$ of a pound.¹³ At the same time the amount of alloy in the silver was increased to about 10 per cent.

It may be noted in passing that, although the *denarius* suffered considerably from debasement under subsequent emperors, no further reduction seems to have been made in its normal weight as long as it continued to be a regular factor of the currency.

I have elsewhere enumerated various reasons that have been urged in explanation of the reduction of the gold and silver coins under Nero. There seems no question, however, that the reduction in the case of the *aureus* and *denarius* is inseparably associated with the readjustment of the orichalcum and copper coinage.

Orichalcum, as we have seen, tended to depreciate relatively to copper, whereas copper seems to have maintained its relative value to gold and silver. The

¹³ Pliny, *N. H.*, xxiii. 3 (13).

difficulty was met during the reigns of Caligula and Claudius, as we have seen, by the issue of *sestertii* and *dupondii* at an increased weight. Whether or not this device proved unsatisfactory does not transpire; but it is certain that during the earlier part of Nero's reign the coinage of orichalcum was abandoned.

Between A.D. 60 and 63 there appears to have been a limited output of copper *asses*, *semisses*, and *quadrantes* and possibly a few *dupondii*. But as time went on the need of a regular and more plentiful supply of orichalcum and copper became daily more pressing. Thus the senatorial mint was again confronted with the problem of how to deal with the fluctuating value of orichalcum in relation to the other metals without upsetting the traditional imperial system.

The solution hit upon by Nero's mint-masters was to issue coins of all denominations, from the *sestertius* downwards, in orichalcum, adding to those already in common use the *as*, *semis*, and *quadrans*.

It was doubtless the intention of the framers of this policy that the three smaller denominations of orichalcum should supersede the copper coins already in use, although the latter could not immediately be withdrawn from circulation. As regards the *semis* and *quadrans* the plan seems to have been successful, and after A.D. 65 these denominations were issued in orichalcum only. But the brass *asses*, of which there are only three types, were evidently struck for only a short period, and, either to preserve the traditional aspect of the coinage or to facilitate international exchange, a speedy return was made to the *asses* of copper.

Thus it will be seen that the two metals ceased to be interdependent. The orichalcum coins formed a complete system by themselves and the copper could pass as money of convenience.

A possible and perfectly logical course of action would have been to have definitely raised the weight of the *sestertius* from $\frac{1}{12}$ to $\frac{1}{10}$ of a pound, making it, that is to say, normally twice the weight of the *dupondius*. This, however, does not seem to have been attempted seriously, and although examples of Nero's *sestertii* are occasionally found to scale as much as 500 grs.,¹⁴ their comparative rarity, combined with the fact that specimens in the finest state of preservation frequently fall considerably below 421 grs., points to the conclusion that the traditional weight of an ounce was nominally retained for the *sestertius*, while the standard of orichalcum was regulated by the *dupondius* of normally $\frac{1}{20}$ lb.

It was probably mainly on grounds of economy that the heavier standard of $\frac{1}{10}$ lb. was not adopted for the *sestertius*; but that its weight frequently exceeds an ounce is not difficult to explain, since, in consequence of the depreciation of orichalcum, it was eminently politic to issue the coins above, rather than below, the nominal weight.

The maintenance of a high orichalcum standard and the slight reduction in that of the gold and silver brought the three metals into harmony. But since pure copper appears to have retained its original relation to gold and silver, the reduction in the weight of the *aureus* and *denarius* necessitated a slight

¹⁴ An unusually heavy *sestertius* of the "Port of Ostia" type weighs 536 grs.

diminution in the weight of the *as*. Thus the copper *as* appears to have been issued at 168·4 grs. or $\frac{2}{3}$ of a pound.

The monetary reform of A.D. 63 was an undertaking of a bold and elaborate character, and Nero's reformed coinage has been not inaptly described by M. Soutzo as the most important monetary system of antiquity.¹⁵ Certainly it presented the most complete gradation of denominational values ever current at the same time. In its practical result, however, it is impossible to regard it as other than an interesting experiment. Meritorious as it undoubtedly was in theory, it came to an abrupt termination at Nero's death, and no attempt to revive it in its entirety was made by any of his successors in the Principate.

The weights of Nero's reformed coinage may be tabulated as follows:—

		Number of coins to the pound.	Normal weight.		Average weight in Grs.
			Grs.	Grms.	
Gold	Aureus	45	113.75	7.27	
	Quinarius aureus	90	56.87	3.635	
Silver	Denarius	96	52.64	3.41	
	Quinarius argenteus	192	26.32	1.70	
Orichal- cum	Sestertius	12	421.0	27.28	420.0 (50)
	Dupondius	20	252.6	16.37	252.7 (30)
	As	40	126.3	8.185	125.5 (6)
	Semis	80	63.15	4.09	57.7 (13)
	Quadrans	160	31.5	2.045	33.5 (6)
Copper	As	30	168.4	10.91	166.9 (27)
	Semis	60	84.2	5.45	86.8 (10)
	Quadrans ¹⁶	120	42.1	2.72	53.1 (3)

§ 13. *The Readjustment of the Coinage after Nero.*

The reign of Galba is remarkable amongst other things for the prolific output of coins from the imperial

¹⁵ *Rev. Num.*, 1898, p. 659.

¹⁶ Some uncertainty exists as to the normal weight of the smallest denominations of brass and copper.

and senatorial mints. In fact there is probably no period of similar duration (barely seven months) in the history of the Roman coinage when coins were produced in so great number or with so many varieties of type. The result seems to have been rather an over-production of specie, at any rate as regards brass and copper; consequently, from the death of Galba, January 15, A.D. 69, until the late autumn of the same year the senatorial mint appears to have taken a complete rest. This incidentally explains the non-existence of bronze coins of Otho and the comparative rarity of those of Vitellius.

The point of main importance, however, so far as our present consideration is concerned, is the change in the monetary system that took place after the death of Nero. The elaborate brass and copper system, introduced in A.D. 63, disappears, and Galba's coinage returns to a modified form of the Augustan system, consisting of only three denominations, viz. *sestertius*, *dupondius*, and *as*. Further, it is evident from the coins that the brass, or orichalcum, pieces were no longer issued at the heavier standard. The *sestertius* seldom weighs more than an ounce (421.0 grs.) and the *dupondius* reverts to its original weight of half an ounce (210.5 grs.) No change appears to have been made in the weight of the *as*; and the *aureus*, *denarius*, and *quinarius* (N and AR) continue in accordance with the Neronian standard, with the exception of certain *aurei* issued at Tarraco (av. wt. 117 grs.).

Thus the coinage of the Empire settled down to the form that became stereotyped under the régime of the Flavians and Antonines, and, in spite of the growing corruption that eventually undermined both

the fabric and credit of the currency, this form lasted in theory down to the time of Gallienus.

The dominant factors of the system are the *denarius* and *sestertius*; and, judging from the profusion in which these coins were issued from the time of Vespasian onwards, we may infer that they constituted the principal medium of exchange. The weight of the *sestertius* remained more or less steady until the reign of Commodus, its average being highest under Antoninus Pius.

Gold and silver *quinarîi* were issued in small quantities and they seem to have been used mainly for donative purposes.

The fractions of the *as*, i.e. *semisses* and *quadrantes*, occur more or less continuously between the reigns of Vespasian and Commodus, although they exhibit considerable variation in the matter of weight.

Under Trajan the average weight of the *semis* (orichalcum) is 50.36 grs.; that is to say, it probably conforms to the Neronian standard. Under Hadrian it appears to be somewhat heavier, and shows an average of 68.0 grs. Its weight falls, however, during the reigns of Antoninus Pius and M. Aurelius.

Vespasian struck *quadrantes* of orichalcum and copper, although rather curiously the same weight standard and the same types appear to have been used for coins of either metal. From Domitian to Trajan copper *quadrantes* were issued at an average weight of 41.49 grs., while under Hadrian the *quadrans* appears to have been struck in orichalcum only, with an average weight of 37.7 grs. Thus, Hadrian's standard of both *semis* and *quadrans* appears to have been slightly in excess of the Neronian.

A series of small brass and copper coins, frequently described incorrectly as "tesserae", belongs in all probability to the period from Domitian to Hadrian. The obverse type is the head of a divinity such as Mars, Venus, or Mercurius, with a corresponding reverse type as a cuirass, dove, or caduceus. The coins are without legends, but the S.C. found invariably on the reverse denotes that they are of senatorial mintage and consequently should be regarded as factors of the monetary system. Thus, in spite of their erratic weights, they are probably *semisses* and *quadrantes*, and it may be conjectured that they were issued for distribution among the populace on public festivals.¹⁷

§ 14. *The Decline of the Augustan System.*

Under the Flavians and Antonines the weight, style, and metallic purity of the coinage were maintained more or less consistently. It is during the latter part of the reign of Commodus that the signs of decadence first became conspicuous by the inequality of his coins in the points mentioned and by the sudden restriction in the issue of gold. From the death of Commodus the tendency grows apace and deterioration is observed in every species of coin. The gold began to be issued at erratic weights; the silver became more and more debased and, after the reign of Gordian III, practically ceased; the bronze dwindled in size and gradually lost the fine quality it possessed under the earlier emperors.

Such attempts as were made to resuscitate the

¹⁷ Some coins of smaller size than the *quadrans* may possibly be *sextantes* or *unciae*.

coinage by Caracalla, Alexander Severus, or Decius, were attended with ill success, and, in their results, tended for the most part to add confusion to a system that was fast becoming unintelligible. The unwieldy size of the Empire, a succession of incapable or avaricious rulers, the increasing demands for military payments, alike contributed to the difficulty of maintaining the credit of the currency. Disaster was inevitable; and the reign of Gallienus witnesses to the *débâcle* of the once splendid coinage of Imperial Rome.

The general decadence that pervades the coinage of the third century is not easy to analyse, nor does it appear possible to discover any regular gradation in its progress. Chaos resulting in collapse is perhaps the most accurate description of the coinage of the period.

Before entering upon a detailed consideration of the more salient aspects of the decline or attempted revivals of the coinage, it is important to note that the key to the whole chapter of disaster lies in the debasement of the silver coinage.

Silver obviously presented greater opportunities of fraud than any of the other metals used in currency. To debase gold was futile, since the fraud would immediately be revealed by the weight or colour of the metal; and in all important transactions gold appears to have been reckoned by weight in ancient times. Brass and copper, on the other hand, were not of sufficient value intrinsically to be worth tampering with.

Thus the practice of adulterating the silver coins existed from very ancient times. Excluding the

purely fraudulent device of issuing plated or *fourré* coins, such as was common enough under the Republic and early Empire, the first official debasement of the *denarius* occurred under Nero (A. D. 63), when the amount of alloy was about 10 %.

This has sometimes been looked upon as the first step in the downward direction that ultimately brought the imperial coinage to ruin. But since we have already suggested more cogent reasons for the Neronian reform than either lust of gain or dire necessity, the debasement of the *denarius* under Nero may be regarded as an incident in a great financial scheme rather than the initiation of a fraudulent practice on the part of the State.

The subversive element does not arise until the debasement of the silver was carried on irrespective of the relative value of the *aureus*.

Under the Flavians and Antonines the prevailing tendency was to increase the percentage of alloy in the *denarius*, as may be gathered from Hammer's analysis. Thus the amount appears as follows:—Vespasian 15–20 %, Trajan 10–22 %, Ant. Pius 10–30 %, Commodus 30 %, Sept. Severus 25–55 %.¹³

Under Septimius Severus the *denarius* is seen almost at its worst. Not only is the average percentage of alloy greater than in the preceding reigns, but the metal of which the coins are composed shows the most extraordinary variation of quality. Some specimens, indeed, are merely of plated copper.

It is obvious, then, that one of two results follows. Since 25 *denarii* could no longer be exchanged for an

¹³ J. Hammer, *op. cit.*, p. 98 seq.

aureus, either gold ceased to be a regular and intelligible factor of the monetary system and came to be regarded merely as bullion, or the number of *denarii* tariffed as the equivalent of the *aureus* underwent a change. Further, the debasement of the *denarius* involved a reduction of the brass and copper. Thus the *sestertii* are frequently struck on such small flans that they compare unfavourably with *dupondii* of the first century. The small denominations of bronze gradually disappear and the *dupondius* and *as* seem to have been issued only in small quantities. It may be mentioned in passing, that, owing to the extremely poor quality of the orichalcum of the period, it is often difficult to distinguish between the two denominations commonly described as "second brass". The old rule—which by the way was not always observed—that the radiate head denoted the *dupondius* and the laureate or bare head the *as*, certainly breaks down altogether after the time of Commodus.

§ 15. *The "Antoninianus".*

The most serious effect of the policy of Septimius Severus was that the silver coinage was in imminent danger of losing credit entirely. Hence the motive for the pseudo-reform of Caracalla (A.D. 214), the most striking feature of which was the introduction of a new denomination, generally known as the "Antoninianus".

It is convenient for the present to refer to this coin by its popular designation, although the name rests on no better authority than a chance allusion in a letter of Bonosus, which is included in the *Augustan*

History—a late compilation of singularly untrustworthy character.¹⁹ Elsewhere in the same work we find mention of such coins as *aurei Antoniniani*, *argentei Aureliani*, and *aerei Philippei*,²⁰ but they appear to be merely descriptive terms invented at a later date.

Apart from its larger size the new coin was readily distinguished from the ordinary *denarius* on account of its bearing the radiate bust of the emperor instead of the bare or laureate head, which had been the unvarying tradition of the silver coinage.

The first question that arises in connexion with the "Antoninianus" is, what was its current value?

Some writers have maintained that the new coin was a "double denarius".²¹ This theory, however, calls for little comment, since it has been conclusively disproved by Professor Oman in an important article on "The Decline and Fall of the Denarius".²²

The average weight of Caracalla's "Antoninianus" is shown to be 78.3 grs.,²³ and the proportion of pure silver in its composition is about 0.55. The quality

¹⁹ *Scriptores Historiae Augustae*, xxix. 15. On the general question of the numismatic details in the *Scriptores*, see K. Menadier, *Die Münzen und das Münzwesen bei den Scriptores Historiae Augustae*, Berlin Univ. Diss., 1913.

²⁰ *Ibid.*, xxviii. 4 (5).

²¹ Mommsen, *Röm. Münz.*, p. 828, "Binio oder Doppeldenar"; also Gneccchi, *Roman Coins*, p. 122: "... the double Denarius or Argenteus Antoninianus, weighing about 5.45 grms. and containing not more than 20 % of silver". The last statement is certainly untrue of Caracalla's "Antoniniani"; cf. Hammer's analysis.

²² *Num. Chron.*, 1916, pp. 37-60. This article contains much valuable information with regard to the "Antoninianus" and the silver coinage generally. I shall not attempt to reproduce what Professor Oman has so ably said, but rather I shall venture to use his article as the basis of the present section.

²³ *Ibid.*, p. 39.

of the metal was therefore practically identical with that of the *denarii* of the period.

Professor Oman estimates the normal, or theoretical, weight of the original "Antoninianus" at 80 grs. ; but, although this is approximately correct, it is evident that such a weight would have been unintelligible to the Roman mind. In Caracalla's time the Neronian weight for the *denarius* was still in force. That is to say, the coin weighed, or was supposed to weigh, 3 scrupula (= 52.5 grs.). It seems clear, therefore, that the new coin was issued at the weight of $4\frac{1}{2}$ scrupula (= 78.75 grs.) or one-and-a-half times the weight of the *denarius*. Thus the "Antoninianus" would be worth 6 *sestertii* or 24 *asses*.

A difficulty arises, however, when we inquire what was the probable relationship of the "Antoninianus" to the *aureus*. Caracalla's *aurei* vary in weight from about 100 to 112 grs. They were, moreover, evidently struck in comparatively small numbers and were little circulated. Professor Oman has suggested that in all probability Caracalla's lighter *aurei* of 100 grs. were intended to exchange for 25 "Antoniniani", which would involve a ratio between gold and base silver of 20 to 1, or, taking the average of pure metal contained in the coins, the ratio of gold to silver would work out at about 12 to 1.

This is clear and in itself perfectly reasonable ; but how does the *denarius* fit into the scheme? Reckoning the *denarius* at two-thirds of the "Antoninianus" it follows that the light *aureus*, equivalent to 25 "Antoniniani", would have been worth $37\frac{1}{2}$ *denarii*—a most inconvenient sum. Or again, if the "Antoninianus" was worth 6 *sestertii* it would require 150

sestertii to equal the value of an *aureus* of 100 grs. It is true that from the time of Commodus the weight of the *sestertius* had become somewhat erratic, yet we can scarcely imagine that so radical a change in the relation of the denominations was made.

It is scarcely conceivable that, when Caracalla attempted to reform the currency, he committed so egregious a blunder as to sever the relationship of gold and the baser metals, or that he framed a dual system of base silver on so impractical a basis as that just indicated. Down to the reign of Gallienus it seems practically certain that the *aureus* was tariffed at a definite number of *denarii*. But since the *denarius* had evidently fallen below its theoretical value there seems no reason why in 214 its original relation of $\frac{1}{25}$ of an *aureus* should not have been readjusted.

It has been suggested by Mr. Mattingly—and I venture to think that the suggestion has much to commend it—that Caracalla tariffed his *aureus* at 30 *denarii* or 20 "Antoniniani". This agrees with the ratio of the "Antoninianus" to the *denarius* at $1\frac{1}{2}$ to 1, and at the same time offers an intelligible basis for the system.

Possibly Caracalla's experiment proved unpopular; however, the fact remains that no "Antoniniani" appear to have been issued by the short-lived Macrinus, and although, in the early part of his reign, Elagabalus struck both *denarii* and "Antoniniani" he very soon discontinued the issue of the latter.²⁴ The explanation, suggested by Professor Oman, is that the withdrawal of the "Antoninianus" became necessary

²⁴ An "Antoninianus" of Alex. Severus is known; but, needless to say, the coin is excessively rare.

in consequence of Elagabalus having reduced the weight of the *aureus* below Caracalla's minimum of 100 grs. "The moment that *aurei* of 96 or 98 grs. began to appear in numbers, the convenient relation of one to twenty between the silver and the lighter gold ceased to exist."²⁵

It seems pretty certain, however, that when Elagabalus reduced the weight of the *aureus* he also diminished the intrinsic value of the "Antoninianus". Not only are his coins lighter than those struck by Caracalla—that is to say, on the average they fall considerably below the theoretical $4\frac{1}{2}$ scripula—but they are composed of inferior metal. According to Hammer, the "Antoninianus" of Elagabalus contained only 0.428 of pure silver. It may be noted in passing that, as regards quality, the silver coinage of Elagabalus shows the acme of confusion, and the percentage of pure metal in his *denarii* varies from 0.750 to 0.4340.

§ 16. *The Attempted Reform of Alexander Severus.*

The quality of the *denarius*, which was bad enough under Elagabalus, became even worse under Alexander Severus.²⁶ However, about the year A.D. 227 (TR.P.VI) Alexander took steps to reform the silver currency, and his attempt has been memoria-

²⁵ *Op. cit.*, p. 46.

²⁶ A *denarius* of Alex. Severus, which Professor Oman very kindly lent me, after it had been analysed showed the wretchedly small proportion of silver to be 0.334 (the weight of the coin is only 39.8 grs.). Unfortunately the tribunician date is cut off the flan, but since the coin corresponds almost exactly in style, weight, and legend with one in my collection dated TR.P.V, there seems no doubt that the analysed coin belongs to the earlier part of the reign, *i.e.* before the reform.

lized on his coins by such legends as **RESTITVTOR MON(etae)** and **MON-RESTITVTA** (Coh. 516, 180). He undoubtedly effected an improvement not only in the style but also in the composition of the *denarius*. His portrait with slight beard, which appears on the coins struck after A.D. 227, is almost invariably in high relief and compares very favourably with the style of his earlier *denarii*. His finer *denarii* average 49.5 grs., which shows clearly that the 3 scripula standard was aimed at. He did not, however, succeed in raising the percentage of silver in his *denarii* much above 5,²⁷ although many examples seem to be made of very much purer metal, so far as one can judge by their general appearance without having actually tested them.

There seems good reason for supposing that the aim of Alexander's reform was to restore the silver currency to its original status of 25 *denarii* to the *aureus*. Thus having raised the value of the *denarius* somewhat, his next step was to reduce the weight of the *aureus* to about 92 grs. Yet in spite of this alteration he failed to strike the true balance of the metals. The amount of pure silver contained in twenty-five of Alexander's *denarii* is certainly not equivalent to the value of even the reduced *aureus*, reckoning the ratio of gold to silver at 11.5 or 12 to 1, which appears to be a fair estimate for the period. Thus the attempted reform of A.D. 227 was essentially superficial and consequently lacked permanency.

Alexander's successor, Maximinus, issued practically

²⁷ *Denarii* of Alex. Severus analysed by Hammer show 0.5, 0.476, 0.45, 0.406, 0.358, 0.35, 0.337, but he does not give the dates of the coins.

no gold and allowed the *denarius* to fall slightly below the standard fixed in A.D. 227.

In the year A.D. 238 Pupienus and Balbinus revived the "Antoninianus", which they issued in large quantities. In spite of the discredit into which the "Antoninianus" had fallen under Elagabalus, its renaissance appears to have given it a popularity and stability such as it never had before. Although outside evidence is lacking on the point, it is almost certain that this must have been due to some readjustment made in A.D. 238 in the value of the "Antoninianus" relatively to the other factors of the currency. The *denarius*, as a coin, was rapidly becoming extinct, and it is not unreasonable to suppose that it was being crushed out of existence by the "Antoninianus" rated at $\frac{1}{25}$ of an *aureus*. Professor Oman, however, suggests that the revival of the "Antoninianus" was rendered possible by the almost total absence of gold coins during the joint reigns of Pupienus and Balbinus.

In A.D. 242, however, Gordian III did the logical thing and abandoned the issue of the *denarius*; thus the "Antoninianus" became henceforth the *unit* for reckoning silver values. From the reign of Gordian III to that of Gallienus *denarii* and *quinarii* of base silver continued to be issued in infinitesimally small quantities. It is clear, therefore, that they were no longer factors of the regular currency. Probably these smaller coins were in little demand as their relation to the "Antoninianus" of respectively two-thirds and one-third was inconvenient, and the larger coin was found sufficient for all ordinary purposes. We may conjecture, too, that they were rather of the nature of pattern pieces, and that the reason for their

continuance was merely in order to preserve the theoretical structure of the base silver currency.

§ 17. *The "Double Sestertius".*

The reign of Trajanus Decius is marked by the introduction of a new denomination of bronze, which is generally described as a "Double Sestertius", although its actual weight falls considerably below that of two *sestertii*.

The average weight of the *sestertius* under Trajanus Decius is about 310 grs., and an ordinarily fine specimen weighs 333 grs., whereas the weight of a fine example of the "Double Sestertius" is 488 grs., which is approximately one-and-a-half times that of the *sestertius*. It seems, therefore, more in accordance with the weight of the coins to regard the larger bronze coin as equal to a *sestertius* and a half.

Since the coins themselves frequently show signs of having been in circulation they were evidently not issued merely as ornamental or ceremonial pieces. The term Medallion which has sometimes been applied to them is, therefore, inaccurate. Regarding these rather ponderous coins, then, as factors of the regular currency, how are we to account for the introduction of a denomination representing a *sestertius* and a half? A possible explanation is that the traditional relation of four large bronze coins to one silver coin was eminently convenient, but since the "Antoninianus", which was equal to 6 *sestertii*, had become dominant this relation ceased to exist. Thus Decius tried the experiment of issuing bronze coins, worth $1\frac{1}{2}$ *sestertii* apiece, four of which were equal to an "Antoninianus", in order that the old 4 to 1 relationship

should be restored. It is perhaps not altogether without significance that, whereas it had been the invariable custom on the senatorial large brass to portray the emperor either bare-headed or with the laurel wreath, these coins represent Decius wearing the radiate crown, which was the distinctive feature of the "Antoninianus".

The experiment of the so-called "Double Sestertius" appears to have met with small success, and none of these large coins were issued after the reign of Decius.

§ 18. *The End of the Augustan System.*

Never in the whole course of Roman history was the coinage plunged into so wild a state of confusion as during the disastrous reign of Gallienus. Thus the final collapse of the Augustan system was inevitable. The gold was issued regardless of any weight standard. The debased silver "Antoninianus" degenerated into a mere apology of plated copper, in which form it lingered until the first year of Aurelian. The senatorial bronze, which constituted the basis of the Augustan system, after having lost almost every vestige of its former dignity, terminated abruptly, since the introduction of worthless plated coins made the continuance of bronze impossible.

Every disruptive force seemed to have been let loose upon the discredited Roman coinage. Yet the coins of Gallienus abound in surprises. At a time when it might be expected that artistic feeling and refined treatment were almost dead we come across many examples of extreme beauty, worthy of the best period of Roman art. Even amongst the coins of the Gaulish Postumus, whose coinage as a whole is full of

vagaries of all sorts, we find specimens of style and execution that proclaim the work of genuine artists. Few periods can boast of a greater variety of coin-types than when Gallienus misruled the Empire; and, amidst the general heedlessness of the essentials of a satisfactory coinage, considerable attention appears to have been devoted to relatively unimportant matters, such as the devising of new types or the flattering portrayal of the emperor.

§ 19. *The Reform of Aurelian.*

A revolutionary demonstration organized by the moneyers (A.D. 271) resulting in much bloodshed,^{2*} compelled Aurelian to turn his attention to the lamentable state of the coinage, and to the many abuses that had sprung up in connexion with the mint. No doubt Aurelian designed to carry out a sweeping reformation of the monetary system, but so many other matters, political, military, and economic, pressed for immediate settlement that the indefatigable emperor had to content himself with a somewhat unpretentious scheme, which was of too superficial a character even to restore the discredited Roman coinage to a sound footing.

After the disappearance of the *sestertius* and *dupondius*, the imperial currency was, for all practical purposes, reduced to one denomination, namely the silver-washed copper coins, which were the disreputable remnants of the "Antoninianus".^{2†} In their

^{2*} *Script. Hist. Aug.*, xxvi. 38.

^{2†} Gold coins were issued in small quantities down to the time of Diocletian, but, although they appear to fall into three denominations, their weights are so erratic that they can scarcely be regarded as regular factors of the monetary system.

last phase, under Claudius Gothicus, these coins vary considerably in size and weight and are usually untidy in appearance; their average being 49.9 grs. with a maximum of 70 grs. (25 coins).³⁰ The earliest coins of Aurelian are in general appearance similar to those of his predecessor, and even his portrait is scarcely distinguishable from that of Claudius. The weight of the coins appears, however, to have fallen slightly, as their average works out at 47.55 grs. with a maximum of 58 grs. (9 coins).

After the year 271 a very marked change takes place. The coins are issued at a far more consistent weight and, for the most part, exhibit a very creditable degree of artistic excellence. Aurelian, however, did more than merely effect an improvement in the style and fabric of the coins, since we find unmistakable evidence of his purpose not only to fix, but definitely to state their current values, in the symbol **XXI** or its Greek equivalent **KA** (sometimes **XX** or **K**) which frequently occurs on the larger plated coins and the corresponding symbol **VSV** on the smaller.

Aurelian's system comprised four principal denominations:—

- | | |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| (1) Plated copper or mixed metal | { (a) with mark of value XXI . Size 22-23 mm.
(b) with mark of value VSV . Size 19-20 mm. |
| (2) Copper . . . | (c) Sestertius (?). Size 27-30 mm.
(d) As (?) Size 24 mm. |

In addition to these were issued—but apparently in

³⁰ The unequal composition of the coins of Claudius Gothicus—some being of base silver or billon, while others are practically pure copper—may probably be explained as the result of careless fusion of the metals. Silver, being the heavier of the two metals, would tend to collect at the bottom of the melting pot.

very limited quantities—copper of larger dimensions than (c), probably "Medallions", and, later on, small plated coins of approximately half the value of (b).

The most important member of the system is the plated coin (a) which resembles the original "Antoninianus". That is to say, the emperor is always portrayed wearing the radiate crown, and the coin weighs on the average 62·5 grs. with a maximum of 73 grs. (32 coins), which possibly implies a normal standard of 70·15 grs. or $\frac{1}{72}$ of a pound.³¹ Although the general appearance of the coin seems to suggest that it is a survival of the "Antoninianus" it is far more probable that in reality it is a new denomination.

To have attempted to reinstate the discredited "Antoninianus" would have been almost hopeless, since it had lost all pretensions to being even a base silver coin, and its purchasing power must have dwindled to a minimum. It is, moreover, contrary to all the canons of Roman monetary reform to find an attempt made at restoring credit to a declining or decadent coin by suddenly issuing it at a higher weight standard; and, if we except the temporary augmentation in the weight of the *dupondius* that occurred in the middle of the first century, we find that the very opposite procedure is the rule.

These new coins of Aurelian are apparently alluded to by a writer of the Augustan history as "argentei Aureliani"³²—obviously an invented term, which may be placed on a level with "argenteus Antoninianus"; yet, slight as this authority undoubtedly is, there

³¹ The specimens weighed were all in the finest condition; twenty being selected from the Bodleian Collection.

³² *Script. Hist. Aug.*, xxvii. 4 (5).

seems a certain significance in thus applying a distinctive name to Aurelian's coins instead of calling them "Antoniniani", which would have been appropriate if the coins were merely revivals of the older denomination.

The feature of these coins that calls for special consideration is the introduction of the mark of value **XXI**, since it gives the clue for determining the principle on which Aurelian's reform was based, and marks a step in the evolution of the Roman monetary system.

Before venturing on a conclusion as to the probable meaning of the symbol **XXI** it is necessary to refer briefly to some of the theories already advanced by numismatists.

(1) De Salis interprets **XXI** (or **KA**) as indicating that, according to Aurelian's reform, twenty-one of the plated coins were equal to a silver *denarius*, the twenty-fifth of an *aureus*.³³ This theory, however, presents two difficulties. In the first place, since Aurelian issued no silver coins of any sort, it is evident that, if he took the *denarius* as the basis of value, either he must have adopted the standard of one of his predecessors—a manifestly difficult undertaking in view of the enormous fluctuation in the value of the *denarius* during the last fifty years of its existence—or, failing this, he must have assumed a purely hypothetical value for the *denarius*, reckoning it, that is to say, not as an actual coin but as the twenty-fifth part of the current *aureus*. This again would scarcely have been possible, since Aurelian's gold coins show a gradation in weight ranging from 9.1 to 3.5 grms. (= 140.4

³³ *Num. Chron.*, 1867, N.S., vol. vii, p. 325.

to 54.0 grs.).³⁴ The term "denarius" was used for reckoning money down to the time of Diocletian, but the amount represented by the term tended to diminish. Therefore, in 271 it is inconceivable that it could have implied so great a value as twenty-one of the plated coins.

Secondly, it is obvious that twenty-one is a most inconvenient number to reckon; and it is inconceivable that the twenty-first part of the obsolete silver *denarius* should have been adopted as the basis of any scheme for the improvement of the monetary system.

With reference to the numeral XX (or K) occasionally found in place of XXI (or KA), De Salis goes on to state that "in the provinces reclaimed from Tetricus, the proportion of the old to the base *denarius* seems to have been, till the middle of the reign of Probus, as one to twenty instead of twenty-one".

This, however, only leads to worse confusion, since it means that the same denomination would stand in an alternative relation of either one-twentieth or one-twenty-first to its unit.

(2) Dattari in his article, "La cifra XXI sopra i così detti Antoniniani",³⁵ rightly points out that the formula cannot be regarded as 21 as the 1 is frequently separated from the XX, or occasionally omitted entirely. He maintains, further, that the 1 is not strictly a numeral but the traditional symbol of the *as*, such as occurs on the early Republican bronze. Thus XX.1 signifies 20 *asses*. It is unnecessary here to attempt to reproduce Dattari's arguments in support of this

³⁴ Seeck, *Zeit. für Num.*, xvii, p. 39; and cf. Rohde, *Die Münzen des Kaisers Aurelianus*, etc., p. 288 f.

³⁵ *Riv. it.*, 1905, pp. 443-9.

theory. But while admitting their ingenuity a serious difficulty is presented by the occurrence of **VSV** on coins approximately half the weight of those marked **XX-I**. Thus if **XX-I** stands for 20 *asses* we should naturally expect to find on the smaller coins **X-I** or **VV-I**, whereas it is clear that the two **V**'s are only equal to a semis (**S**) or half that of the other.

(3) It has been suggested that the **XX** indicates that the coin was a piece of 20 *denarii*. This, however, presupposes a decline in the value of the *denarius* far beyond what appears to have actually occurred. It would, in fact, no longer be a coin but a mere standard of reckoning values. It may be pointed out, moreover, that the term *denarius* was in common use at any rate down to the time of Diocletian's *Edictum de pretiis*, when it is clear that it denoted a value considerably greater than $\frac{1}{20}$ of the plated coins marked **XX-I**.

(4) Mr. Hill, who follows Seeck and Missong, suggests that the **XXI** (or **KA**) signifies the equation 2 *denarii* = 1 unit. "The **XX** or **K**", he says, "must signify that the coin is a double *denarius*, and the **I** or **A** that it is the unit of reckoning."³⁶

One is naturally diffident in advancing a fresh

³⁶ *Handbook of Greek and Roman Coins*, p. 51 (also cf. Seeck, *op. cit.*, p. 118). Mr. Hill is referring primarily to the coins of Diocletian with **XXI**, but his note applies equally to those of Aurelian.

It is a little puzzling to find that **XX-I** also occurs on certain "folles" or reduced "folles", issued under the Tetrarchy about the year 303. Evidently these larger coins were not of the same current value as the small plated coins issued between A.D. 271 and 303, although Dattari has attempted to identify the two groups. We shall, however, deal more fully with the point in the next section.

theory on a subject already overburdened in this respect; but, since none of the foregoing appears to offer a complete explanation of Aurelian's coinage, I feel justified in making a suggestion which may, I trust, prove a step towards a final solution.

Obviously the symbol **XXI** on the larger plated coins cannot be considered apart from the **VSV** occasionally found on the smaller. In these two symbols the **I** and the **S** must stand for *unit* and *semis* respectively; and it appears probable that Seeck and Missong are right in regarding **XX**, not as the numeral 20, but as two **X**'s. Thus the symbols may be translated as 2 **X**'s = 1 (unit) and 2 **V**'s = $\frac{1}{2}$ (semis).

Referring to the monetary conditions of the period we have shown that during the reign of Claudius Gothicus the "Antoninianus" had been running its downward course, and it seems pretty certain that in the first year of Aurelian it came to an end. We may believe, however, that while it lasted, its relation to the *denarius* was theoretically the same as formerly, although the *denarius* as a coin had long ago disappeared from circulation. That is to say, small as the actual value of the "Antoninianus" had become, it was still in theory half as much again as that of the *denarius*.

Aurelian evidently took this theoretical ratio as the basis of his monetary system, and accordingly issued bronze coins containing a small percentage of silver at approximately two-thirds the weight of the debased "Antoninianus".

These smaller coins (*b*), on which Aurelian is invariably portrayed wearing the laurel wreath, and Severina is minus the crescent, weigh on the average

39.5 grs., with a maximum of 46.0 grs. (20 coins). This is, as a matter of fact, somewhat in excess of two-thirds the average weight of the "Antoninianus" and seems to indicate a normal standard of 42.1 grs. or $\frac{1}{12\frac{1}{2}}$ of a pound. However, the discrepancy is inconsiderable, and, in their general appearance, the coins certainly recall the older *denarii*.

The symbol **VSV** found on these coins thus indicates their value as 2 *quinarii* (**VV**) or half (**S**) the larger coin with **XX**. Logically, then, we might regard the larger coin as a "double denarius", yet the occurrence of 1 in the symbol shows clearly that it was not a multiple of some lesser denomination, but was itself the unit of reckoning. How is this to be explained?

I think there is no question that Aurelian's larger coin was never known as a "double denarius", but was simply called by the familiar name of *denarius*. Thus the full interpretation of the two symbols would be as follows:—**XX.1** implies that two debased *denarii* of the standard existing prior to A.D. 271 are equal to one newer *denarius* (or "Aurelianus"—to quote the generally discredited *Scriptores Historiae Augustae*, although the term may have some point after all)—and correspondingly **VSV** implies that two debased *quinarii* are equal to $\frac{1}{2}$ the newer *denarius*.

What Aurelian did, apparently, was to substitute a plated *denarius* for the defunct "Antoninianus"; although the new *denarius* was intrinsically less valuable its weight was almost the same as that of Caracalla's "Antoninianus", and decidedly greater than the very decadent "Antoninianus" of A.D. 270.

The copper group comprises two regular denominations (*c*) and (*d*), sometimes described as medallions;

although more probably they represent an attempt to revive the older *sestertius* and *as*, without *SC*.

The former range in weight from about 250 to 350 grs. and the latter from 105 to 150 grs.²⁷ The larger coins, *sestertii*, are without exception of considerable rarity, and, although they were struck by Aurelian and by each of his successors down to Numerian, it is evident that their issue cannot have been otherwise than on a very limited scale. Those of smaller size, *asses* (?), are comparatively common with the heads of Aurelian and Severina, but their issue becomes exceedingly scanty after Probus.

The notice of these coins opens up a question that has exercised the minds of numismatists in recent years, as to the value of the mixed-metal coins (*i.e.* coins of plated copper or copper containing a small percentage of silver) relative to the ordinary bronze or copper coins, issued during the latter part of the third century.

The consideration of the question involves a slight anticipation of our subject in one or two points, but its bearing on the coins of Aurelian is so evident that it seems fitting to include it in the present section.

The mixture of a small proportion of silver with the main bulk of copper added slightly to the intrinsic value of the metal, but it seems more than doubtful whether some of the theories based upon this fact can be entertained seriously. For example, Seeck,²⁸ Dattari,²⁹ and others, reckoning the percentage of silver and copper at 0.045 and 0.955 respectively, have

²⁷ Fourteen very fine examples of the latter give an average weight of 122.9 grs.

²⁸ *Zeit. f. Num.*, xviii, p. 118.

²⁹ "La cifra XXI", &c., *Riv. it.*, 1905, p. 446.

attempted to determine the intrinsic value of the mixed-metal coinage in relation to ordinary bronze. Thus, these writers maintain that Diocletian's *folles* was intrinsically of the same value as the Neronian *sestertius*.

Dattari's argument is undoubtedly ingenious and is in itself logical, but it should be pointed out that, so far as analyses of the coins have been made, the only result is to show considerable variation in the amount of silver present. To adjust the intrinsic value of a copper coin by the addition of a small proportion of silver, so that the resultant metal should be two-and-a-half times the value of unalloyed copper, involves a process of such extreme delicacy that it is difficult to believe that either the appliances or requisite skill would have been forthcoming at the close of the third century.

The further difficulty of guaranteeing so enhanced a value in actual currency would have been enormous, especially as the Roman public had had a long and bitter experience of debased, and often fraudulent, money. Moreover, since the percentage of silver tended to vary, the appearance of a coin gave but little indication of its intrinsic value.

Turning to the evidence of the coins themselves we find the ratio between the pure silver and mixed-metal or plated coins definitely shown in the time of Diocletian by the fact that 20 *folles* were equal to a silver *denarius*. That is to say, the value of pure silver relative to the mixed metal was 60 to 1. It is evident, therefore, that the value of the mixed-metal or plated coins was intrinsically very little, if any, greater than that of ordinary bronze.

On the other hand, there seems very little doubt that the silver coating was something more than a merely ornamental device and was intended to give to the coins an increased value in currency. Evidently the actual purchasing power of the plated coinage had become exceedingly small by about the year 271; it is possible, therefore, that in the resuscitation of bronze coins, corresponding with the *sestertius* and *as*, we see an attempt to force up the plated currency to a fictitious value.

This policy was, of course, thoroughly dishonest, and as the ratio between plated and copper coins was entirely artificial, the break-down of the system became inevitable. Hence the gradual disappearance of the *sestertius* and *as* under Aurelian's successors. It, moreover, goes some way towards explaining why Diocletian abandoned the copper or brass currency and issued all his lower denominations in plated copper.

Aurelian's system may be tabulated thus:—

Copper.	Plated Copper.
4 <i>Asses</i> = 1 <i>Sestertius</i> .	
8 " = 2 <i>Sestertii</i> = 1 <i>Quinarius</i> VSV.	
16 " = 4 " = 2 <i>Quinarii</i>	= 1 <i>Denarius</i> XX-I.

Apparently in consequence of the discontinuance of copper *sestertii* and *asses* as regular factors of the currency, there was issued, during the reigns from Probus to Carinus, a plated denomination of about half the value of the **VSV** *quinarius*. On these small coins, which are as a rule of remarkably beautiful workmanship, the emperor's head is always laureated. The weight of finely preserved specimens ranges from 22 to 35 grs., the average being 30.9 grs., thus in all

probability implying a normal standard of 33.6 grs. or $\frac{1}{188}$ of a pound.

In actual practice, however, it would appear that they were only issued in very small quantities, and the *VSV quinarii* very soon dropped out of circulation. Probably there was no great demand for these small coins, and the plated *XX-l denarius*, whose purchasing power cannot have been very great, sufficed for ordinary transactions.

§ 20. *The Reform of Diocletian.*

The reign of Diocletian has been said to mark a new era in the world's history. It was indeed an age of many reforms, and during the joint reign of Diocletian and Maximian as Augusti with Galerius and Constantius as Caesars, no department of State administration, either military, civil, economic, or religious, escaped the most rigorous overhauling.

In no direction was the need of reform greater than in the matter of the currency. For nearly a century the Roman coinage had been steadily going from bad to worse, and during the baleful existence of the "Antoninianus" it reached the lowest depth of degeneracy and as a system lost all coherency. The attempts at revival that occurred during the third century were, as we have seen, merely evanescent. However, Aurelian's unpretentious "reform" had at any rate achieved a result of some importance by the institution of a new plated denomination of definitely fixed value, which had so far proved successful in arresting the tendency to further debasement of the coinage. Aurelian's scheme, however, had proved altogether too inadequate, and so it fell to Diocletian

to grapple seriously with the problem of the currency. This he did with a thoroughness and originality such as had not been seen since the time of Nero, and his reform must be accounted successful in so far as it placed the coinage on an intelligible basis and in a large measure restored the shattered credit of Roman finance. That it was not permanent was due to the unsoundness of the economic principles on which most of Diocletian's schemes were based, and the utter impossibility of arbitrarily enforcing a uniform standard of values throughout the Empire.

Diocletian's reorganization of the Roman coinage was a work that extended more or less throughout the reign in a series of experiments the aim of which was to establish a universal system comprising coins of gold, silver, and plated copper, their relative values being adjusted on a decimal, as opposed to the time-honoured duodecimal basis.

(a) *Gold*. Diocletian's first objective was to restore the *aureus* to its place as an integral factor of the monetary system. When Caracallā (A.D. 214) began to issue gold coins at irregular weights, the relation of the *aureus* to the silver and bronze naturally became confused; added to which the introduction of the base "Antoninianus" proved an entirely subversive element that in the end not only drove the silver coinage out of existence but destroyed all relationship between the different metals of the currency.

The establishment of a gold unit bearing a fixed relation to silver and copper was a matter involved in considerable difficulty.

Seeck⁴⁰ has aptly pointed out that the relative

⁴⁰ Seeck's important article on the coinage of Diocletian (*Zeit.*

values of gold and silver were not universally fixed, and that in provinces where one or other of the precious metals occurred naturally, or owing to the exigencies of local trade, the value of gold relatively to silver varied. Prior to the time of Diocletian no attempt had been made to set up a central standard of values, nor indeed would any such attempt have been practicable.

This no doubt largely explains the changes that occur in the weight of Diocletian's *aurei*.

Seeck⁴¹ has divided Diocletian's gold coins into five classes, which may be summarized as follows:

(1) A.D. 286. Coins issued at irregular weights, frequently falling below 4 grms.

(2) Before A.D. 290. The *aureus* = $\frac{1}{70}$ of a pound (i.e. 4.68 grms. or 72.2 grs. normal). This standard was adopted at Antioch, and coins of this mint not infrequently bear the mark of value O (= 70).

(3) circ. A.D. 290. The *aureus* = $\frac{1}{60}$ of a pound (i.e. 5.45 grms. or 84.2 grs. normal), with mark of value Z (= 60).

(4) A.D. 301. The *aureus* = $\frac{1}{60}$ of a pound (i.e. 6.55 grms. or 101.1 grs. normal), without mark of value.

(5) A.D. 302. The *aureus* = $\frac{1}{60}$ of a pound (i.e. 5.45 grms. or 84.2 grs. normal), with mark of value Z (= 60). This standard survived in the East probably till the year A.D. 324, in Italy and Africa till A.D. 312, and in Illyria till A.D. 314.

The alternation between *aurei* of $\frac{1}{60}$ and those of $\frac{1}{70}$

für Num., vol. xvii, pp. 36 ff.) is frequently referred to in the course of this section.

⁴¹ *Op. cit.*, p. 49; cf. also Hill, *Handbook of Greek and Roman Coins*, p. 54.

seems to indicate the empirical character of the system, or more probably an attempt to fix the value of the *aureus* artificially at a standard which did not wholly coincide with the natural rate of exchange.

There seems good reason to believe that at the time of the Edict Diocletian really intended the weight of the *aureus* to be $\frac{1}{5}$ of a pound, since this produces a perfectly symmetrical system on a decimal principle. Thus the pound of gold would be equal to 50 *aurei*, 1,000 *denarii argentei* (*miliarensia*), 50,000 *denarii aerei*, or 100,000 *contenionales*. When, however, it became necessary to reduce the weight of the gold coin to $\frac{1}{6}$ there naturally followed a proportionate increase in the number of all coins relatively to the value of a pound of gold as follows: the pound of gold = 60 *aurei* = 1,200 *denarii argentei* = 60,000 *denarii aerei* = 120,000 *contenionales*.

(b) *Silver*. The restoration of the silver currency, which was obviously necessary in order to bring the *aureus* into definite relation with the lower denominations, was undoubtedly the most important achievement of Diocletian's reform.

Diocletian's silver coinage appears to have undergone a series of changes corresponding with the variation in the weight of the *aureus*. In the earlier years of the reign, at any rate as early as A. D. 290, according to Seeck and Dattari,⁴² the *aureus* was equal to 25 silver *denarii*, i.e. 1,500 silver coins were the equivalent of a pound of gold. The weight of this newly introduced *denarius* was based on the Neronian standard of A.D. 63, namely 52.64 grs. or $\frac{1}{8}$ of a pound. On some

⁴² G. Dattari, "Il sistema monetario della riforma di Diocleziano", *Riv. it.*, 1906, p. 375-96.

specimens there occurs the numeral XCVI, thus leaving no doubt as to the intended normal standard. By the monetary reform of A.D. 296 the number of silver *denarii* equivalent to the *aureus* was reduced from 25 to 20; and if, about the year 301, the weight of the *aureus* was raised to $\frac{1}{80}$, it is evident that a corresponding increase must have occurred in the weight of the *denarius*. Thus the *denarius*, or as it may perhaps be designated the *miliarensis*, since it was supposed to represent the value of $\frac{1}{1000}$ of a pound of gold, seems at this period to have been issued at the standard of $\frac{1}{80}$ or 60.14 grs.

Subsequently, when the weight of the *aureus* was reduced from $\frac{1}{80}$ to $\frac{1}{100}$, the *miliarensis* returned to its original standard of $\frac{1}{80}$, still, however, retaining its relation to the *aureus* of 20 to 1; and although this necessarily changed the equivalent of the pound of gold from 1,000 to 1,200 silver coins the latter were apparently still known as *miliarensia*.

(c) *Copper*. Diocletian's copper, or more correctly mixed-metal, coinage (since all the coins contain a small percentage of silver) opens up several questions upon which somewhat divergent views are held by numismatists.

Excluding coins of unusual size, commonly called "medallions",⁴³ the reformed system of the Tetrarchy consisted of three regular denominations, the *follis*, the *denarius aereus* or *communis*, and the *quinarius* or *centenionalis*.⁴⁴ Of these the *follis* was the predomi-

⁴³ The larger bronze coins are probably multiples of the *follis*.

⁴⁴ Objection may be raised to the terms *miliarensis*, *follis*, and *centenionalis*, as applied to the coins of Diocletian, on the ground that any clear authority for their use is lacking. But the common

nant factor. Prior to 296 the plated *denarius* had been struck in enormous quantities and, even if its issue was discontinued, must have formed a substantial part of the currency. The *centenionalis* appears to have been in small demand, and its issue was probably confined to the metropolitan mint. In addition to these regular denominations we find others of an extraneous nature described by Cohen as "entre MB et PB". Unsatisfactory as the term undoubtedly is, it will be necessary to retain it for the present, since we possess no evidence as to the true nomenclature of the coins.

(1) *The Follis*. The largest and by far the most important member of the group is the *follis* (described by Cohen as MB). After the year 296, the *miliarensis* or *denarius argenteus*, according to Seeck, was worth 25 *folles*; Lépaulle,⁴⁵ however, puts the number at 20, and Dattari at 16. With regard to its weight, Lépaulle gives 140.3 grs. (= 9.08 grms.) or $\frac{1}{16}$ of a pound, while Dattari estimates its normal weight at 154 grs. (= 9.99 grms.) However, having weighed 60 fine examples of the *follis* issued under the Tetrarchy I find the average weight works out at 162.3 grs., with a maximum of 185 grs. This naturally leads one to infer that the normal weight standard must be decidedly higher than that assigned by either Lépaulle or Dattari.

It appears beyond question that Diocletian's method of reckoning coin-weights was according to fractions of the pound. The numerals O and Z on the gold, and

employment of this terminology seems to justify its adoption in the present section.

⁴⁵ E. Lépaulle, *Rev. Num.*, 1889, pp. 119-25. Cf. also Blanchet, *Les monnaies romaines*, p. 15.

XCVI on the silver, are incontestible evidence of this; and since this method was adopted for the gold and silver it is natural to suppose that it was also employed for the copper. Again, since Diocletian reverted to the Neronian standard for fixing the weight of his silver coin, it seems by no means improbable that the weight of his copper was determined by the same standard. Thus Nero's copper *as*, issued at $\frac{1}{36}$ of a pound (168.4 grs.), supplied an eminently convenient weight, which corresponds so closely with the averageweight of Diocletian's *folles* that there seems very little doubt that the latter was normally issued at this standard.

The difficulty of ascertaining the theoretical weight of the *folles* is enormously increased by the fact that towards the end of the Tetrarchy the coin began to dwindle, and since the coins are undated it is not always possible to decide which of them belong to the earlier part of the period.

Assuming then that the normal weight of the *folles* was originally 168.4 grs., it is quite inconceivable that a silver coin of 52.64 or even 60.1 grs. should have been worth as many as 25 *folles*; in spite of the fact that bronze had apparently depreciated in relation to gold and silver since the time of Nero. A revival of the old equation of 16 copper *asses* of $\frac{1}{36}$ to a *denarius* of $\frac{1}{68}$ of a pound would seem perfectly natural had the relative values of the metals remained the same. But in the year 301, when the *miliarensis* was issued at $\frac{1}{84}$, it is evident that this proportion was impossible. Further, since Diocletian manifested a partiality for a decimal system we can only conclude that the *miliarensis*, or silver *denarius*, was worth 20 *folles*. This relation between the coins continued even when the

miliarensis was reduced to $\frac{1}{8}$ of a pound, although, as a natural consequence, we find a tendency to reduce the weight of the *follis*.

(2) The connecting links between Diocletian's system and the coinage that preceded it are the "*denarius communis*" and *quinarius* or "*centenionalis*." From the time of Aurelian's reform (A.D. 271) the chief factor of the currency was, as we have shown, the plated copper coin with XXI described as a "new *denarius*". Diocletian and his colleagues continued to issue this coin in large quantities down to about the year 296. No alteration was made in its general appearance, *i.e.* the emperor is invariably portrayed wearing the radiate crown and almost always the cuirass, and the numeral XXI frequently appears on the reverse.

The XXI seems to have been retained simply with a view to preserving the continuity and traditional aspect of the coins.

It seems pretty clear, however, that the coin, either with or without XXI, issued under the Tetrarchy, was known as a "*denarius communis*" or simply a *denarius*; and further that it is the coin that is taken as the basis of values in the *Edictum de pretiis*, according to which 50,000 of these *denarii* were rated as the equivalent of a pound of gold.⁴⁰

Under Diocletian, however, a slight reduction appears to have been made in its weight, and Aurelian's standard of $\frac{1}{2}$ of a pound was replaced by the

⁴⁰ According to our modern standard 1 lb. of almost pure gold is worth 42,240 halfpennies. Thus Diocletian's *denarius communis* may be expressed as equal to about $\frac{1}{12}$ of a modern penny, which appears to be about the value of the coin termed a *denarius* in the Edict of prices.

newer standard of $\frac{1}{7\frac{1}{2}}$. Thus the normal weight of the coin would be 67.36 instead of 70.15 grs. The difference is only trifling, and one is bound to admit that it is impossible to state categorically, merely on the evidence deduced from weighing specimens, that such a change actually took place. But since 50 of Diocletian's coins, with XXI on the reverse, all in the finest condition,⁴⁷ give an average weight of 61.29 grs., which is slightly lower than the average of Aurelian's coins (*vide supra*), and since the proportion of $\frac{1}{7\frac{1}{2}}$ theoretically fits in with the rest of Diocletian's system far better than $\frac{1}{7\frac{1}{2}}$, we may conclude that this change of weight is, at any rate, highly probable.

During the latter part of Diocletian's reign the XX-I *denarius* was superseded by a coin of somewhat similar appearance, without mark of value, but of reduced weight.

The authorities on the coinage of Diocletian already cited state that the "*denarius communis*" was worth half a *follis*. Yet despite this consensus of opinion I find it impossible to accept this estimate of the relative values of the two coins.

Whether we estimate the normal standard of the *denarius* at $\frac{1}{7\frac{1}{2}}$ of a pound, as Lépaulle and others, or at $\frac{1}{7\frac{1}{2}}$, as seems to me the more probable, in either case it falls considerably below half the weight of the *follis*. The equation of 1 *follis* = 2 *denarii* involves putting the normal weight of the *follis* at $\frac{1}{3\frac{1}{2}}$ of a pound or 140.3 grs. (Lépaulle's estimate), which is evidently far too low. If, however, the *follis* was issued normally at $\frac{1}{3\frac{1}{2}}$ (= 168.4 grs., *vide supra*) and the *denarius* at $\frac{1}{7\frac{1}{2}}$

⁴⁷ These specimens were selected mainly from the Bodleian Collection.

(67.36 grs.) we have an exact ratio between the coins of $2\frac{1}{2}$ to 1.

In corroboration of this conclusion we have evidence, outside that of the coins themselves, to show that in the year 301 a pound of gold was worth 50,000 *denarii*; and as we have already shown that the *aureus* was worth 20 *miliarensia* and the *miliarense* was worth 20 *folles*, it follows that the pound of gold = 50 *aurei* = 1,000 *miliarensia* = 20,000 *folles* = 50,000 *denarii*. That is to say, the *follis* was worth $2\frac{1}{2}$ *denarii*. This, at any rate, appears to have been the relation between the coins at the time the new currency was inaugurated. Within a few years, however, the weight of the *follis* became considerably diminished, consequently its relation to the *denarius* changed.

Some light is thrown upon the question of the current value of the *denarius* at the beginning of the fourth century by Diocletian's famous *Edictum de pretiis*⁴⁸ referred to above. This monumental example of economic fallacy, which attempts to fix a maximum scale of tariffs from the price of an onion to the fee of a barrister, naturally contains a good deal that is of small importance to us and must have been merely tiresome to the people of Diocletian's day. Here and there, however, we find items which give some clue to the purchasing power of money at the period. For example, the wages of an agricultural labourer are fixed at a maximum of 25 *denarii* per diem, the price of beef at 8 *denarii* a pound and pork at 12. It is evident, therefore, that although the coin termed in the "Edict" a *denarius* was of low value,

⁴⁸ *Edictum Diocletiani* (Monmsen, ed. by H. Blümner, 1893).

it could not have been worth less than $\frac{1}{25}$ of an Augustan *denarius*.

(3) The smallest denomination in the monetary system of Diocletian is the *centenionalis* or bronze *quinarius* (PBQ) on which the emperor's head is always laureate. Its normal weight is exactly half that of the *denarius aereus*, i.e. 33.68 grs. of $\frac{1}{150}$ of a pound. Thus it formed a continuation of the small plated coin current during the period from Probus to Numerian. The name "*centenionalis*" appears to be derived from the fact that it represented the 100th part of a *miliarense*, or *denarius argenteus*, or the 100,000th of a pound of gold. Judging from the comparative rarity of these little coins at the present time, it may be conjectured that their issue was far more limited than that of the higher denominations.

(4) The coins of intermediate size between the *follis* and *denarius communis*, mostly described by Cohen as "entre MB et PB", must be considered as transitional issues rather than new factors of the monetary system instituted under the Tetrarchy.

There is no question that Diocletian aimed at arbitrarily establishing a universal monetary standard; but although the two main factors of his system, namely the *follis* and *denarius*, were current throughout every province of the Empire, it by no means follows that the exchange value of the coins was uniform. Further, the appearance of coins of intermediate sizes affords unmistakable evidence that the prescribed coinage was either inadequate or unsuitable for local requirements. Hence it is not altogether surprising to find that, in order to bring the coinage more into harmony with traditional money values or local usages,

certain alterations were made in Diocletian's symmetrical and highly artificial system, which inevitably reduced it to a state of confusion.

These developments were not confined to the East, but appear to have occurred in varying degrees throughout the greater part of the Empire.

The coins that result from these local efforts at reform are of a transitional character and naturally exhibit considerable variation in the matter of weight. However, despite the appearance of confusion presented by the coinage of this period in general, it is possible to discern two fairly defined elements: (1) a new denomination was instituted in the last year, or perhaps two years, of the Tetrarchy, and this continues down to about the year 314; (2) the *follis* passes rapidly through various stages of reduction until it finally merges into the smaller coin.

(1) The new denomination resembles the *follis* in type and style. That is to say, the Emperor's bust is laureate, and on the reverse the types most commonly met with are **GENIO POPVLI ROMANI** or other types characteristic of the *follis*. The coins weigh on the average 98.0 grs., which probably indicates a normal standard of 101.04 grs., or $\frac{1}{32}$ of a pound. This distinctive weight, and the fact that they were first issued while the *follis* retained its original standard, or at any rate was only beginning to show signs of diminution, is practically conclusive evidence that these coins form a denomination apart from the ordinary *follis*.

A somewhat limited number was issued by Diocletian and Maximian shortly before their abdication, and by Galerius as Caesar, but they become far more numerous

after Galerius assumes the title of Augustus and under Maximinus. By the year 311 they appear to have either ousted or absorbed the *follis* and consequently became the largest bronze coins in regular circulation.

The following may be taken as representative examples of this denomination :

Class 1 (under the Tetrarchy).

Obv.—IMP C VAL MAXIMIANVS P F AVG. Laur.
bust of Maximian r.

Rev.—GENIO POP ROM. Genius. PTR, PLC,
PLN. (Weights, 93, 94, 95, 96, 99, 103,
106 grs.)

Class 2 (after 305).

Obv.—IMP. C. GAL VAL MAXIMIANVS P F
AVG. Laur. head of Galerius r.

Rev.—GENIO IMPERATORIS. Genius. ALE, &c.
(Weights, 90, 93, 95, 99, 100 grs.)

Diocletian with *Rev.* QVIES AVGG. (92, 94 grs.)

Divo Constantio with *Rev.* MEM. DIVI. CONSTANTII.
(Weights, 88, 93 (3), 98, 99, 100, 105, 107, 113 grs.)

It is not altogether easy to determine the relation of coins of this weight to the other current denominations. They cannot very well be "half-folles" as their weight is considerably more than half that of the *follis*. Moreover a half-follis would involve the rather awkward proportion to the *denarius communis* of $1\frac{1}{4}$. It will be seen, however, that their weight is exactly one-and-a-half times that of the *denarius* or three times that of a *centenionalis*, and presumably on the strength of this some writers have described this denomination as a "teruncius".

It must be admitted that the term has little to commend it, and since the *centenionalis*, or *quinarius*,

never obtained more than a very limited circulation it is improbable that it was taken as the unit of reckoning when the new denomination was devised.

In spite of its deficiency in the matter of weight, it seems more reasonable to suppose that in currency this new denomination was worth 2 *denarii communes* and that the *follis* gradually dropped to the same value. Moreover, the fact that the numeral K almost invariably occurs in the field on later examples, particularly those of Alexandrian mintage, seems to point to this conclusion.

(4) *The Decline of the Follis.* We have already anticipated the stages by which the weight of the *follis* dwindled from $\frac{1}{16}$ to $\frac{1}{32}$ of a pound. Since, however, it is in this connexion that some light is thrown on the meaning of the symbol XX-I found on later examples of the *follis*, it seems worth while to consider the question in detail. According to the theory advanced by Dattari⁴⁹ the Alexandrian *follis* with XX-I was equivalent to the plated *denarius*, not only in currency but intrinsically. He bases his argument on the hypothesis that the amount of pure silver in the plated *denarius* was 0.055, whereas the *follis* contained only 0.045. Even allowing that these percentages represent the average found in the coins it is impossible to overlook the utter impracticability of attempting to regulate the value of copper coins by embellishing their surface with a thin coating of silver.⁵⁰ It is, moreover, highly improbable that coins of such different appearance and size should have been regarded as of equal value.⁵¹

⁴⁹ *Riv. it.*, 1905, pp. 443-9.

⁵⁰ *Cf.* § 19.

⁵¹ It may be mentioned that *folles* with XX-I are not confined

A far more probable explanation of the symbol **XX-I** on the *folles* seems to be that the copper *denarii* of the Tetrarchy had become extinct, and just as Aurelian had taken the theoretical standard of the debased *denarius*, two of which were equal to the newer *denarius*, so there was no reason why the same symbol should not have been employed at a later date to indicate that a coin was the equivalent of two of Diocletian's *denarii communes*.

If, as I believe, the symbol **XX-I** does not occur on the *folles* until almost the end of the Tetrarchy, just before the coin began to show signs of losing weight, it seems probable that in certain provinces it was already beginning to pass at the rate of two instead of two-and-a-half *denarii*. Hence the employment of the symbol.

The following examples of the Alexandrian mint may serve to illustrate the decline of the *folles*:

- (a) A.D. 304 or 305. *Follis* of usual size, but showing signs of slightly reduced weight.
Maximian. Rev.—GENIO. POPVLI. ROMANI;
 164 grs., diam. 1.10 in.
Galerius Caesar (similar); 150 grs., diam. 1.10 in.
- (b) 305. Reduced size and weight.
Galerius Caesar (similar); 125 grs., diam. 0.95 in.
- (c) After 305.
Galerius Augustus. Rev.—VIRTVS. EXERCITVS;
 130 grs., diam. 0.90 in.
Diocletian (after abdication). *Rev.—PROVIDENTIA. DEORVM.*; 114 grs., 115 grs., diam. 0.90 in.

Subsequently the *folles* was reduced to about 100 grs., at which stage it became amalgamated with the

to the mint of Alexandria, but were issued elsewhere—at Siscia, for example.

denomination characterized by the numeral K, described above.

Although the *follis* underwent a similar process of diminution in every province of the Empire, the rate at which it was reduced does not appear to have been uniform. At Antioch, for example, its decline seems to have been less rapid than at Alexandria. Thus we find the **PROVIDENTIA DEORVM QVIES AVGG** type (after 305) occurring simultaneously on coins of two sizes, *i.e.* the ordinary *follis* of $\frac{1}{32}$ and the newer denomination of $\frac{1}{40}$. Again, at the western mints, such as Trèves and Lyons, the original standard of the *follis* seems to have been retained some time after it had been reduced at Alexandria.

The foregoing considerations, however, throw practically no light on the following bronze coin of Maximianus:—

Obv.—**IMP C·MAXIMIANVS P F AVG.** Radiate and draped bust r.

Rev.—**CONCORDIA AVGG.** Diocletian and Maximian seated l. on curule chairs. In ex., **S. C.** [Coh. 46.]

The only specimen of this extremely rare coin that I have had an opportunity of examining is in the Bodleian Collection. The coin is in good condition and weighs 120 grs. Cohen classes it as MB and not as "entre MB et PB", although it is decidedly smaller and lighter than the ordinary *follis*. Indeed, the portrayal of the emperor wearing the radiate crown instead of the wreath, the unusual occurrence of **S·C.**, and its general unlikeness to the *follis*, indicate plainly that it does not belong to this denomination. Nor, on the other hand, can it be classed among the coins of intermediate size already described.

From a single specimen it is of course impossible to conjecture its normal weight or its probable relation to other coins of the period. No coins of corresponding style appear to have been issued by Diocletian or by either of the two Caesars, Galerius and Constantius. So that this type of Maximian stands alone.

The only explanation I can offer for the occurrence of this remarkable coin is that, while Maximian was in command of the government at Rome, it is possible that he made an abortive attempt to revive the old Senatorial bronze coinage on his own initiative. But whether he was actually trying to reintroduce the old *dupondius* or whether he contemplated the issue of a new series of bronze denominations must be left an open question.

E. A. SYDENHAM.

(*To be continued.*)

APPENDIX I.

TABLE I.

DENOMINATIONS CURRENT UNDER DIFFERENT EMPERORS B.C. 15-A.D. 258.

	Aureus.	Quinarius A.	Denarius.	Quinarius R.	Sesterlius.	Dupondius.	As (copper)	As (orich.)	Semis (copper.)	Semis (orich.)	Quadrans (copper.)	Quadrans (orich.)	Antoninianus.
Augustus . . .	+	+	+	+	+	+	+	-	-	+	+	-	-
Tiberius . . .	+	+	+	+	+	+	+	-	-	+	-	-	-
Caligula . . .	+	+	+	+	+	+	+	-	-	-	+	-	-
Claudius . . .	+	+	+	+	+	+	+	-	-	-	-	-	-
Nero	+	+	+	+	+	+	+	+	+	+	+	+	-
Galba	+	+	+	+	+	+	+	-	-	-	-	-	-
Otho	+	-	+	-	-	-	-	-	-	-	-	-	-
Vitellius	+	...	+	...	+	+	+	-	-	-	-	-	-
Vespasian . . .	+	+	+	+	+	+	+	+	+	-
Titus	+	+	+	+	+	+	+	-
Domitian . . .	+	+	+	+	+	+	+	-	-	-	-	+	-
Trajan	+	+	+	+	+	+	+	-	-	+	+	-	-
Hadrian	+	+	+	+	+	+	+	+	+	+	-
Ant. Pius and M. Aurelius . }	+	+	+	+	+	+	+	-	-	+	-	-	-
Commodus . . .	+	+	+	+	+	+	+	-	-	-	-	-	-
Sept. Severus .	+	...	+	...	+	+	+	-	-	-	-	-	-
Caracalla . . .	+	...	+	...	+	+	+	-	-	-	-	-	+
Alex. Severus Maximinus . }	+	...	+	...	+	+	-	-	-	-	-	-	-
Pupienus . . . }	+	...	+	...	+	+	-	-	-	-	-	-	+
Balbinus . . . }	+	...	+	...	+	+	-	-	-	-	-	-	+
Gordian III . .	+	...	+	+	+	+	-	-	-	-	-	-	+
Philip I- Gallienus . }	+	...	+	+	+	+	-	-	-	-	-	-	+
Decius	+	+	+	...	-	...	+	+

The above table includes only such denominations as obtained ordinary currency, thus omitting multiples

of the *aureus*, *denarius*, *sestertius*, or *as*, popularly described as "medallions".

TABLE II.

THE DECLINE OF THE SESTERTIUS.

	Average weight of Sestertius.	Composition of Orichalcum.			
		Copper.	Zinc.	Tin.	Lead.
Claudius . . .	438.5	{ 77.44 72.2	21.5 27.7	— —	— —
Nero	419.5	81.07	17.81	1.65	—
Vespasian and Titus . . . }	406.0	81.30	16.3	—	1.1
Trajan . . .	403.0	{ 78.55 88.58	16.4 7.56	3.01 1.8	— 2.28
Hadrian . . .	419.4	{ 91.24 85.67	7.14 10.83	— 1.14	— 1.73
Ant. Pius . .	422.0	87.86	8.14	3.88	—
M. Aurelius .	409.0	85.63	6.07	4.62	2.0
Commodus . .	401.25	85.6	5.77	4.02	4.17
Sept. Severus .	378.5				
Caracalla . .	394.0	86.98	5.0	4.27	3.23
Alex. Severus .	316.5	{ 75.0 71.56	5.63 8.79	6.82 6.45	12.0 13.09
Gordian III. .	325.5	{ 78.0 77.1	8.33 1.36	8.73 7.54	4.74 12.7
Trajan Decius .	310.0				
Gallienus . .	about 250.0				

The average weights given in the above table, as a result of having weighed several hundred *sestertii*, are not, however, much guide as to difference existing between the maximum and minimum weights of coins issued in any particular reign. From the time of Septimius Severus the margin of difference tends to widen, and under Gallienus well-preserved specimens range from about 190 to 320 grs.

The elaborate analysis of the metals composing Roman coins drawn up by J. Hammer (*Zeit. für Num.*, 1908, xxvi, pp. 1-141), an extract from which is given above, shows that the quality of orichalcum varies considerably at different periods, and even in the same reign coins not infrequently exhibit a curious inequality of composition.

It will be noticed that there is a more or less constant tendency to reduce the percentage of zinc, the metal which was essential in the production of orichalcum; whereas lead, the cheaper and far less satisfactory alloy, is used more freely. The metal was thereby reduced both in value and durability, and, as a matter of fact, during the third century it reverts to practically the yellow bronze of Republican times.

After the time of Commodus the Roman *flatores* seem to have paid little heed to the composition of the metal used for the bronze coinage. Old and worn coins, withdrawn from circulation, would have been thrown into the melting pot, to which were added variable quantities of copper, tin, zinc, or lead (as the case might be), without regard to particular proportions so long as the compound presented the desired appearance.

TABLE III.

Proportion of Silver in the Denarius (abridged from J. Hammer's analysis).

Augustus . . .	from	0.991	to	0.9278
Nero	"	0.943	"	0.910
Vespasian . . .	"	0.886	"	0.800
Trajan	"	0.928	"	0.7854
Ant. Pius . . .	"	0.9328	"	0.7015
Commodus . . .	"	0.720	"	0.671
Sept. Severus .	"	0.755	"	0.431
Caracalla . . .	"	0.540		
Alex. Severus .	"	0.500	"	0.334
Gordian III . .	"	0.589	"	0.361

Proportion of Silver in the "Antoninianus".

Caracalla . . .	from 0.623 to 0.520
Elagabalus . . .	0.428
Philip I. . . .	0.500 " 0.320
Decius	0.750 " 0.3964
Gallienus . . .	0.720 " 0.346

The bronze coins coated with silver issued between A. D. 256 and the time of Diocletian show 0.85 to 0.96 of copper and 0.15 to 0.04 of silver; small quantities of lead and tin also occur in their composition.

VIII.

A FIND OF ANCIENT BRITISH GOLD COINS.

[SEE PLATE VIII.]

INCLUDED in the collection of British coins recently presented by Sir Arthur Evans to the nation were the coins described in the present note. Sir John Evans had evidently not had time to work through them, for there were no tickets under them, or any indication of provenance. It seems hardly open to doubt that they represent the greater portion, if not the whole, of a find. I have excluded from the description two specimens of the early flat coinage (Evans A 4), since I do not feel quite certain that they belonged to the find. As is well known, they are attributed by most French numismatists to the Bellovaci (Blanchet, p. 369), and are found on both sides of the Channel.

The remainder of the coins fall into the following groups:

A. Type of Evans B 7, but of more spread fabric, and slightly concave reverse. Forty-eight specimens, some fragmentary. Of reverse dies, fourteen are distinguishable; the obverse dies are nearly as numerous, but there are at least two which are combined with different reverse dies, and one of these also provides a link with another group. Typical specimens are illustrated in Pl. VIII. 1-3. Characteristics of the type are (a) the crescent curving up from the horse's crupper,

sometimes enclosing, sometimes ending in, a pellet; (b) the arrangement of two thin crescents, joined at the top, issuing from the upper edge of the design and ending in two pellets; (c) the curved band of zigzag ornament (not shown in Evans's figure) at the bottom of the design. Of the coins illustrated, **Pl. VIII. 1** is from the same obverse die as a number of coins belonging to group E, with the standing horse. **Pl. VIII. 2** shows the band of ornament clearly. **Pl. VIII. 3** is an unusual reverse, without the second characteristic mentioned above. On **Pl. VIII. 2** the leaves of the wreath point upwards; on all other obverse dies in this group, so far as represented in the find, they point downwards. This obverse die is shared by two different reverse dies.

B. Similar to group A, but without the second characteristic; the pellet below the horse is supported on two diverging crescents; on three of the specimens there is an annulet below these [**Pl. VIII. 5**]; on the fourth there is no annulet, the pellet is radiate, and the horse's neck shaggy [**Pl. VIII. 6**]. All four specimens are from the same obverse die [**Pl. VIII. 4**].

C. Type and fabric of Evans B 7. A single coin, of rather yellower gold than those of the preceding groups, and flatter fabric [**Pl. VIII. 7**]. This class is attributed to the Atrebates by French numismatists (Blanchet, pp. 341-2). The specimen illustrated shows the beginning of an ornamental development, below the wreath on the left hand, which does not appear on the ordinary specimens.

D. A single coin, a variety of Evans B 7, on which the horse's legs are nearly parallel, giving the transition to the standing horse of the succeeding groups [**Pl. VIII. 8**].

E. Type varied from Evans B 1. The horse stands to right, with all four legs parallel and vertical. The band of ornament below is curved instead of straight, to judge from the slight traces remaining. All six specimens are from the same obverse die as certain specimens of group A (cp. **PL VIII. 9** with **PL VIII. 1**). Three of the six are from one reverse die, and three from another.

F. Type of Evans B 4 or B 6¹; horse standing to left, considerably more disintegrated than in group E; straight band of zigzag ornament below [**PL VIII. 10, 11**]. Of the five specimens, two are from the same pair of dies.

G. Similar to F, but on reverse the pellet below the horse is adorned with a number of rays, each terminating in a small pellet. Curved band with zigzag ornament. All from the same obverse die [**PL VIII. 12**]; the following reverse dies occur:

Rev. die a [see **PL VIII. 12**], with ten rays to the globule, and row of small globules between it and band of zigzag.

Three specimens.

Rev. die b, varied from *a* [see **PL VIII. 13**].

One specimen.

Rev. die c, with seven rays to the globule, and various extra pellets; nothing between it and band.

[**PL VIII. 14.**]

Two specimens.

Rev. die d, with six rays to the globule, nothing between it and band. [**PL VIII. 15.**]

Two specimens, one broken.

¹ It seems impossible to separate these two.

Rev. die *c*, six rays, one running into lowest crescent of horse's belly; arc of band flatter.

[Pl. VIII. 18.]

Three specimens.

Rev. die *f*, six rays to globule; also two annulets between it and legs of horse; band off the flan. [Pl. VIII. 17.]

One specimen.

H. Type of Ruding, Pl. I, Nos. 1, 3, 4. Twenty-nine specimens [Pl. VIII. 18-20]. The reverse dies from which these were struck differ so minutely from each other that I have relinquished the attempt to distinguish them, since hardly in any pair of coins have I felt certain of an identity of die. Several show the straight band of exergual ornament (as Muret 8710); but none seem to correspond to the variety illustrated by Evans, Pl. B 8.

These are of the class attributed by French numismatists to the Morini (Blanchet, p. 346). They appear to be of rather yellower gold than the other coins in the find.

J. Quarter-staters of, apparently, a new type. *Obv.* Remains of a head (?). *Rev.* Cruciform pattern: a voided cross with a pellet in middle, and various other pellets in the field. Three specimens. [Pl. VIII. 21.]

It is unfortunate that there is no record of the place where these coins were found; not even whether it was in England or across the Channel. The hoard accordingly throws little light on the question whether coins such as those of group H are British or Gaulish; but the decided difference in respect of metal presented by that group (and the solitary coin in group C) from the remainder of the find inclines me to the view that they must belong to different districts. But

this criterion may be misleading; for the quality of the gold varies surprisingly in the same group of British coins; e.g. there are in the British Museum specimens of the group F (Evans B 4 or 6) which are much yellower, and specimens of group H which are much redder, than any of those groups in the present hoard.

An analysis of the weights (in grains) of the coins in the various groups yields the following results:

Group A (forty coins weighed). Maximum 101.5; minimum 85.9; average 95.2; highest frequency (intervals of 1 grain) 94.5 to 95.4.

Group B. The four specimens weigh 98.3, 94.4, 93.3, and 91.2 grains respectively.

Group C. The single specimen weighs 100 grains. Other specimens of Evans B 7 in the Evans Collection weigh 102.7, 101.3, 98.8, and 98.3 grains; and the British Museum series provides the following weights: 103.2, 100.4, 99.3, 97.0, and 96.2 grains.

Thus we have a maximum of 103.2, minimum of 96.2, average of 99.7. From the descriptions in the Paris Catalogue it is hardly possible to say how many of Nos. 8593-8605 belong to the same group; the illustrations of Nos. 8593 and 8597 show considerable variation. However, the weights recorded against those numbers are: 108.8, 108.1, 98.8 (three specimens), 98.2, 98.0 (two specimens), 97.3 (two specimens), 96.5, 95.7, 94.2. They thus yield a maximum of 108.8, minimum of 94.2, average of 99.1, which, in spite of the very high weights of two specimens, is not against our classing all the Paris coins to our group C.

Group D. The single specimen weighs 97.4 grains.

Group E. The five specimens which are undamaged

weigh 98.4, 97.6, 97.5, 97.2, 96.8; giving an average of 97.5. The connexion, shown by community of dies, with group A is thus not belied by the weights.

Group F. Weights 102.6, 100.0, 99.7, 99.2, 99.2. Specimens already in the British Museum weigh 99.8, 98.3, 96.2, 94.4, 93.6; others in the Evans Collection, 96.7, 96.7, 96.3, 95.9, 93.0. Maximum 102.6, minimum 93.0, average 97.4.

Group G. Maximum 99.3, minimum 96.8, average 97.9.

Group H. The weights of these are remarkably uniform. Maximum 98.1, minimum 95.5, average 96.5. The coins are all in very good condition, and show very small sign of wear. On the other hand, if we take the weights of the other specimens in the Evans and British Museum Collections we get a lower level, owing to the inferior preservation. The five coins in the Paris Catalogue (8710-14), which seem to correspond more or less exactly, range fairly well with the coins in our find (97.7, 97.3, 95.7, 95.2, 95.1). This seems to me to be a case in which the analysis of the weights is fruitful, and I have set out the table of frequency to illustrate what I mean. The coins in our find are indicated by *; those in the Paris Catalogue by +; other coins in the British Museum and Evans Collection by x. It will be observed that on the frequency principle the coins of the find, taken by themselves, place the standard very definitely somewhere between 95.5 and 97.4 grains. The five coins at Paris are too few to argue from, but at least they cannot be said to contradict that result. Neither do the remaining coins contradict it violently, but they tend to place it about a grain lower, and there is quite a number of coins on a considerably lower level. The total evidence is

clearly in favour of a standard of 95.5 to 96.4 grains; a trifle lower than the average of the coins of the find. But if we had taken only the coins in the British Museum, Paris, and Evans Collections, excluding the find, we should have got a rather different result. The table of frequency would still have shown an approximation to the correct result, though the summit

85.5-86.4	×	...
86.5-87.4	...	...
87.5-88.4	...	...
88.5-89.4	×	...
89.5-90.4	...	...
90.5-91.4	...	...
91.5-92.4	×	×
92.5-93.4	×	×
93.5-94.4	×	×
94.5-95.4	+	+
95.5-96.4	.	.
96.5-97.4	.	.
97.5-98.4	.	.

of the curve would have been a point lower. But the average would have been 94.4 grains, thanks to the predominance of specimens of low weight. Possibly an intensive study of the standards of various series of British coins on these lines may throw some light on their classification. In any case, the use of the table of frequency to eliminate abnormal elements, and to correct the average, is well illustrated by this example.

Group J. The three specimens weigh 23.0, 23.0, and 22.1 grains respectively.

G. F. HILL.

IX.

ANGLO-GALLIC COINS.

(Continued from Vol. XII, p. 413.)

(SEE PLATE IX.)

HENRY VIII.

THE Anglo-Gallic series really ceases with the reign of Henry VI, when all the French possessions of the English crown were lost, with the exception of Calais, and Henry was driven from the throne of France, but the record of the series would not be complete without mentioning the groats struck at Tournai by Henry VIII. These coins do not fall into the same category as the rest of the series. They are not French feudal coins, in the same sense as those of Henry II and his successors, nor are they French regal coins, in the same sense as those of Henry VI. They are rather municipal coins, struck by a conqueror for a conquered town.

Henry VIII succeeded to the English throne in 1507, and four years later, in 1511, he entered into an alliance with his father-in-law, Ferdinand of Spain, to attack Louis of France. His revival of Edward III's claim to the French throne was a mere pretext, skilfully used by Ferdinand to persuade Henry to join him for his own ends. An attack on Guienne was

planned, and the English fleet sailed in May 1512. However, Ferdinand did not support the English as he had promised, and the invasion failed. The troops mutinied and returned home.

Henry determined not to allow this failure and loss of prestige to go unheeded. Undeterred by the Spanish king's defection, he planned another invasion of France, this time from the north. He gathered an army at Calais, and proceeded there himself on June 30, 1513. On July 24 he captured Théroutanne, and on September 15 he laid siege to Tournai. The town did not hold out long. It fell on September 24.

After the fall of Tournai, Henry returned to England and peace was made with France. One of the terms of the treaty was that Tournai was to be held as security for an indemnity.

Henry held Tournai for five years. In 1518 he entered into a fresh treaty with France, by which he restored Tournai to France in exchange for a payment of 600,000 francs in twelve years.

The only coinage struck by Henry for Tournai was the groat, and there are two distinct issues. One, bearing the king's portrait on the obverse, and a shield with the royal arms on the reverse, is undated; the other, bearing a shield with the royal arms on the obverse, and a cross on the reverse, is dated 1513. The latter issue comprises two distinct varieties. They are all rare coins, but the types without the portrait are the rarest. It may be that they were the earliest struck, and soon superseded by the portrait type, which remained the current type from 1513 to 1518. The portrait type is undated, and so may well be assigned to the whole period of Henry's occupation

of Tournai, while the types without the portrait both bear the date 1513, and must therefore have been struck immediately after the taking of Tournai, if the date on the coins is to be taken as a guide. It is possible, however, that the date merely alludes to the date of the capture of the city. The portrait type corresponds closely with the earliest English groats of Henry VIII, while the non-portrait types correspond in some particulars to his later issues.

The following is a description of the types:

Groat. Portrait type.

1. *Obv.*—m.m. $\bar{\epsilon}$ crowned. HENRIC' DI' GR' REX.
FRANC' & ANGLI. Stops, saltires. Bust of king to right in profile, crowned and draped, within a beaded inner circle which is pierced by the cross on the top of the crown.

Rev.—m.m. $\bar{\epsilon}$ crowned. DIVI | TARS | TORR |
ANGL' |. Stops, saltires. Shield bearing the royal arms on a cross fourchée, which pierces the beaded inner circle and divides the legend.

Bernard Roth Collection, Pl. vi. 321.

This coin, which is said to be the finest known, is from the Bergne, Brice, and Montagu Collections.

2. As last, but reading ANGLI on obv.

Wt. 44.6 grs. British Museum. (See Pl. IX. 2.)

Groat, without portrait.

Type 1.

1. *Obv.*—HENRIC' S. M. GR' FRANCIE ET ANGLIE:
REX. Stops, pellets. Shield bearing the royal arms, crowned, within a beaded inner circle. In field, fleur-de-lis to left of shield, leopard passant to right. The cross surmounting the crown cuts the inner circle.

Rev.—CIVITAS|TORNT|CENSIS|:1:5:1:3|. Long cross voided, fourchée, extending to edge of coin, each limb crossed by three bars; in centre, h within a quatrefoil compartment. Fleur-de-lis and leopard passant in alternate angles.

Wt. 504 grs. British Museum, from the Evans Collection. (See Pl. IX. 1.)

This coin is said to be the finest of the only three specimens known, and comes from the Shepherd and Montagu Collections. There was another specimen, similar in all respects, in the Murdoch Collection (Pl. vi. 439).

Type 2.

1. *Obv.*—HENRIC⁸.R.IGRA.FRANCIE.ET.ANGLIE: REX. Type as last, but without the lis and leopard in the field.

Rev.—CIVITAS|TORNT|CENSIS|:1:5:1:3|. Long cross as on last, but nothing in angles. In centre, a compartment of four arches and four angles enclosing a quatrefoil with star within it. Beaded inner circle with tressure of twelve arches ending in trefoil.

Wt. 45 grs. Montagu Collection, Part iv, Pl. v. 367. (See Pl. IX. 3.)

This coin is from the Marsham, Montagu, and Murdoch (lot 440) Collections.

This brings the series of Anglo-Gallic coins to an end. I may perhaps add here that I have purposely omitted any reference to the coins of Calais. These seem to me to belong essentially to the English, not the Anglo-Gallic, series. They correspond with the types and issues of the contemporary English coins. The dies were probably made at the Tower, and Calais was looked upon rather as part of England than as part of her French possessions. It is better from every point of view to treat of them as part of the English series.

ADDENDA.

Since beginning the series of articles on the Anglo-Gallic coinage in the *Numismatic Chronicle*, various additional information has come to light, and I think that a short supplementary note may be of interest. I do not intend here to draw attention to minor variations of legends, but only to more important matters, such as new types or new mints.

EDWARD II.

The sterling and demi-sterling previously attributed to Edward III (see *Num. Chron.*, 1906, p. 307) must now be attributed to either Edward I or Edward II. This is established by Mr. G. C. Brooke in his notes on the Carsphairn find in *Num. Chron.*, 1914, p. 383. The date of the deposit of this hoard was probably 1320. As I have already pointed out, these coins in style are much more closely related to the English than the Anglo-Gallic series, and we may perhaps safely apply the same test to them as to the English coins, and assign them to Edward II.

EDWARD III.

Guiennois. Fourth issue. Type 3.

Limoges.

Obv.—ED D GRÆ REX REGIE DO TQVITÆ.
Usual type; I between pinnacles.

Rev.—+ GLTIR EXELCIS DEO ET IR TERRA
PTXIR HOIBVS. Usual type, but only twelve
arches in tressure.

Wt. 59.7 grs. My Collection. Pl. IX. 4.

This is a new mint for the type of guiennois, with twelve instead of sixteen arches in the tressure.

Gros tournois with crown between towers.

Obv.—ED' REX | T R G | L I E |. BRDICTV &c. Fleur-de-lis after L of T R G L I E. Long cross pattée extending to edge of coin.

Rev.—+ DVX: T E I T T R I E. Building with annulet-topped towers. Spire between with crown below. Ground plan(?) beneath building. The whole within a tressure of twelve arches enclosing fleur-de-lis.

Piedfort. Wt. 208.1 grs. Miller Collection. (Pl. IX. 5.)

The coin is published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1916, p. cix. It corresponds with the gros tournois, No. 4, published in *Num. Chron.*, 1912, p. 298, with the exception of the crown between the towers, and the fleur-de-lis in the obverse legend.

M. Miller draws attention to the fact that many piedforts of Edward III are known of which we have no examples of the ordinary coin.

Gros or demi-gros, leopard passant type.

Obv.—ED REX T R G L I E. Outer legend illegible. Cross pattée dividing inner legend.

Rev.—+ DVX O T E I T T R I E. Leopard passant to l.; ornamental border.

Miller Collection.

This coin is published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1917, p. lxxxiv, but unfortunately is in too poor a state of preservation to admit of illustration.

Double.

Obv.—+ EDW T R O V S : R E X. E G L I E - F R A N C in two lines across field.

Rev.—+ M O R E T T : D V P L I X. Cross with three upper limbs fleur-de-lisée, within beaded inner circle.

Wt. 15.6 grs. Miller Collection. (See Fig. 1.)

This coin is also published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1917, p. lxxxii. It is a copy of the double parisis issued by Philip VI on April 12, 1350, or by John the Good on December 30, 1355. It was therefore probably struck by Edward III between 1350 and 1360.



Fig. 1.



Fig. 2.

Hardi d'argent.

Obv.—AD: RX: FRT QIΘ: KCLΘ. Half-length figure of the king, crowned, facing, under a canopy; sword in r. hand, left raised. The whole within a beaded inner circle which is cut at the top by the canopy, and at the bottom by the figure of the king. These also divide the legend.

Rev.—DVX|KEL|TKR|RH|. Stop, rosette. Long cross pattée extending to edge of coin; lis in first and fourth angles, leopard in second and third angles. No inner circles.

Wt. 17.9 grs. Miller Collection. (See Fig. 2.)

This coin is published by M. Miller in the *Procès-verbaux de la Soc. Fr. de Num.*, 1916, p. cviii, and is an extremely interesting addition to the series. M. Miller in his accompanying note draws attention to the fact that the earliest coins of the hardi type previously known were the hardi d'or and hardi d'argent of Edward the Black Prince, but that now it is necessary to date its introduction earlier, that is, to the reign of Edward III.

I have suggested that the hardis of the Black Prince were the latest coins struck by him, probably on his return from his Spanish expedition in 1368, and have based this suggestion on the facts that it is a new type for the Anglo-Gallic series, and that it was the type adopted by Richard II and Henry IV for their Anglo-Gallic coins.

To what date are we to assign this hardi d'argent of Edward III? I am inclined to think it was struck after, not before, the hardis of the Black Prince, and to assign it to the period 1372-7. The Black Prince surrendered Aquitaine to his father in 1372, and if Edward III struck any coins bearing his own name during this period, he would naturally follow the current type.

The argument against this is that the reverse legend is "Dux Aquitanie", and not, as we should expect, "Dominus Aquitanie".

The hardi d'argent of Edward III is alluded to in the MS. Fr. 5524, 132 v° et 133 r° in the Bibliothèque Nationale (see *Num. Chron.*, 1912, p. 373), which states that on September 10, 1453, currency was given for Guienne to, among other coins,

"Petits hardis, old and new, of the Prince of Wales,

of King Edward, and of King Henry of England, father of the said king" (Henry VI).

The sequence seems to imply that the hardi d'argent of Edward III was struck after that of the Black Prince, *i.e.* in the period 1372-7. If the reverse legend were "Dominus Aquitanie" instead of "Dux Aquitanie" we could safely assign it to this period. But in spite of the legend, I am inclined to think that the balance of probability is that it belongs to this period.

HENRY OF LANCASTER.

Gros tournois.

1. With embattled towers.

Obv.—+ohEN: QOMIS L^A. BRD &c. Cross pattée.

Rev.—+oD^S: BR^TGTIR^TQ^L. Building with embattled towers, spire between with three annulets underneath. The whole contained in an ornamented border.

Lalanne Collection.

Published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1901, p. xi.

2. With annulet topped towers.

Obv.—hEN COM L^ATRQE. BRD &c. Long cross pattée to edge of coin. Fleur-de-lis after L of L^ATRQE.

Rev.—D^S: BR^TGTIR^TQ^L. Building with crown between towers, within ornamented border.

Lalanne Collection.

Obv.—hEN COM L^A^BTRQE. BRD &c. Type as last. Fleur-de-lis after L of L^ATRQE.

Rev.—D^S: BR^TGTIR^TQ^L. Type as last, but annulet on either side of building, high up below the cross surmounting the spire.

Lalanne Collection.

These coins are both published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1901, p. xi.

Gros leopard type.

Obv.— $\text{h}\Theta\text{R}|\text{QO}\Omega|\text{LT}|\text{H}\Theta\text{H}|\text{.}$ Cross pattée; outer legend illegible.

Rev.— $\text{D}\Omega\text{S}:\text{B}\text{RT}\text{G}\text{T}\text{I}\text{RT}\text{Q}\text{II}|\text{.}$ Leopard passant to left.

Miller Collection. (See Fig. 3.)

Published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1917, p. lxxxiv. It is a new type of gros for Henry of Lancaster.



FIG. 3.

Denier.

Obv.— $+\text{hENR} \dots \dots$ Leopard to L, between two straight lines; rosette below.

Rev.— $+\text{D}\Omega\text{S. B}\text{RT} \dots \text{I}\text{RT}|\text{.}$ Stop, star. Cross pattée.

Lalanne Collection.

Published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1901, p. xii.

EDWARD THE BLACK PRINCE.

Écu or Chaise.

Poitiers.

Type 2. Lis in first angle.

Obv.— $+\text{ED}\cdot\text{PO}\cdot\text{G}\Omega\text{S}\cdot\text{R}\text{EGIS}\cdot\text{T}\text{R}\text{OGLI}\cdot\text{P}\Omega\text{S}\cdot\text{T}\text{QV}\cdot\text{T}\text{I}\text{K}\Omega|\text{.}$ Stops, rosettes. Usual type. Two arches on each side of Prince.

Rev.— $+\text{D}\text{EVS}\cdot\text{IVD}\text{EX}\cdot\text{IVSTVS}\cdot\text{FORTIS}\cdot\text{Z}\cdot\text{P}\text{K}\Omega\text{I}\cdot\text{GRP}|\text{.}$ Stops, rosettes. Usual type. Lis in first angle.

Wt. 54 grs. Rashleigh Collection, Pl. xviii. 1132.

This is a new mint for the écu.

HENRY V.

Gros. Second issue. September 25, 1419–January 12, 1420.

Obv.—+ HENRICVS:FRANCORV:REX. Stops, pellets. Three fleurs-de-lis surmounted by a crown, within a plain inner circle.

Rev.—+ SIT:ROMA:ORI:BENEDICTV. Stops, pellets. Cross fleur-de-lisée, crown on first quarter, leopard passant to l. in fourth quarter, h in centre.

Wt. 47.3 grs. David Collection. (See Fig. 4.)



FIG. 4.

This coin is a most important addition to the Anglo-Gallic coinage of Henry V. It is the gros or florette of the issue of September 25, 1419.

It will be recollected that the ordinance of September 25, 1419, provided for the issue of a mouton d'or, gros, demi-gros, and quart de gros d'argent, mansois, and petit denier bearing an h in the centre of the cross on the reverse. The mouton d'or, quart de gros, mansois, and petit denier have all been published. We now can add the gros, and there remains only the demi-gros to be discovered.

It will be noticed that this coin corresponds exactly with the gros of the first issue, with the exception of the h in the centre of the cross on the reverse. It was

published in the *Procès-verbaux de la Soc. Fr. de Num.*, 1915, p. xxxii.

The mansois and petit denier of the second issue were not illustrated in my previous article, so I insert illustrations here to show the types.



FIG. 5. Mansois, or double tournois, Sept. 25, 1419.

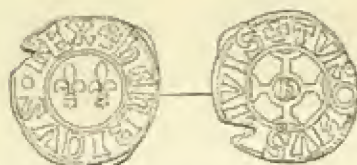


FIG. 6. Petit denier, Sept. 25, 1419.

A mistake is made in the previous article in *Num. Chron.*, 1912, p. 188, in the date of the ordinance which provides for the issue of the leopard gros. The date given is May 6, 1420. It should be May 6, 1421, and the reference to the Normandy Patent Rolls should be 9 Hen. V. memb. 34 dorso. The date was taken from M. de Saulcy's *Histoire numismatique de Henri V et Henri VI*, but M. de Saulcy has made a mistake. The correct date is given in M. Lecoindre Dupont's "Lettre sur l'histoire monétaire de la Normandie pendant les règnes de Charles VI et de Charles VII" in the *Rev. Num. Fr.*, 1846, p. 194.

The various issues of gros of Henry V should be as follows:

First issue, Jan. 19, 1419. Type three fleurs-de-lis.

Second issue, Sept. 25, 1419. Same style, but h in centre of cross on reverse.

Third issue, Jan. 12, 1420. Fleurs-de-lis with leopard supporters.

Fourth issue, June 16, 1420. Same style, but legend **HÆRÈS FRÀNCIÆ**.

Fifth issue, May 6, 1421. Leopard type.

HENRY VI.

Salute.

Auxerre.

I published a salute of this mint in *Num. Chron.*, 1912, p. 386, on the authority of M. de Sauley. I have now been able to obtain a cast of a specimen in the Bibliothèque Nationale, and include it here to illustrate the mint-mark (Pl. IX. 6.)

Angelot.

Rouen.

As *Num. Chron.*, 1912, Pl. xxiii. 3, but annulet enclosing pellet under the last letter but one of the legends.

Bernard Roth Collection, Pl. vi. 318.

This is the angelot of Pierre de Préaulx, struck between 1446 and 1449.

Grand blanc.

Auxerre.

As *Num. Chron.*, 1912, Pl. xxiii. 8, but pellet in front of m.m. on both sides, and **HÆRQVS** above shields on obverse.

Wt. 48.9 grs. Bailhache Collection.

I illustrate this coin because the m.m. is formed differently from those on the two grands blancs from Mr. Walters's Collection, described in *Num. Chron.*, 1912, p. 398, but I think the m.m. on this coin is

intended to be a fer-de-moulin. Dr. Bailhache suggests a root, and attributes this coin to Le Mans. If he is correct, it would belong to the issue prior to July 17, 1432 (see *Num. Chron.*, 1912, p. 399).

Le Mans.

As *Num. Chron.*, 1912, Pl. xxiv. 4, but the m.m. on the obverse and reverse differ considerably from each other. The m.m. on the reverse is of the usual type, but the m.m. on the obverse has no pierced centre, and is very irregular in shape.

Wt. 43.1 grs. Bailhache Collection. (Pl. IX. 8.)

St. Quentin.

As *Num. Chron.*, 1912, p. 403, but without pellet under the sixteenth letters of the legends.

Wt. 46.6 grs. Bailhache Collection. (Pl. IX. 7.)

This is the grand blanc struck before March 5, 1427.

Petit blanc.

St. Quentin.

m.m. spur rowel. Legends and type as usual.

Wt. 24.2 grs. De Marchéville Collection.

Published in *Rev. Num. Fr.*, 1901, p. 387.

Denier tournois.

Macon.

m.m. trefoil. Legends and type as usual.

Messrs. Spink & Son.

Nevers.

m.m. star. Legends and type as usual.

Messrs. Spink & Son.

Denier parisis.

St. Quentin.

m.m. mullet on rev. Legends and type as usual.

Wt. 21.8 grs. De Marchéville Collection.

Published in *Rev. Num. Fr.*, 1901, p. 387.

It is not stated to which issue this coin belongs.

In conclusion, I would desire to express my best thanks to M. Paul Bordeaux and to M. Miller for providing me with casts of coins for illustration, to Dr. Bailhache for lending me his grands blancs of Henry VI, and to the Editors of the *Revue Numismatique Française* for permission to reproduce illustrations appearing in their pages.

ADDENDA II.

Rochelle.

I have recently acquired a specimen of the écu of this mint. It is of type 2, with lis in first angle, and corresponds with the coin described in *Num. Chron.*, 1906, p. 119, but reads TKQVITK on obverse.

Pavilion, First Issue.

Limoges.

The coin in the Montagu Collection (lot 335), mentioned in *Num. Chron.*, 1906, p. 122, has recently come into my possession. It belongs to the First Issue, type 2, with lis in first angle.

HENRY V.

Salute d'or. Rouen.

Another specimen of this rare coin has recently come to light, and differs from the four previously known specimens in reading FRTNQ instead of FRTNQI and in having a pellet under the first letters of the legend (the mint-mark of Rouen) on obverse and reverse. It also differs materially in details of workmanship.

LIONEL M. HEWLETT.

X.

UNPUBLISHED COINS OF THE CALIPHATE.



SINCE the publication of the two volumes of *Additions* to the British Museum Catalogue of Oriental Coins in 1890, over 400 coins of the Omayyad and Abbasid Caliphs have been acquired. Among them are the following, which appear to be worth putting on record as a contribution to the *Fasti Arabici*. They are not given by Tiesenhausen in his *Monnaies des Khalifs Orientaux*, nor are they in the published volumes of the catalogues of the collections in Paris, Berlin, and Cairo. This list has been compared with previous similar articles in the *Numismatic Chronicle* by Mr. Stanley Lane Poole, Dr. Codrington, the late

Mr. J. M. C. Johnston, and with Prof. Major E. von Zambaur's *Contributions à la Numismatique Orientale* in the *Zeitschrift für Numismatik*, 1905, &c.

OMAYYAD CALIPHS.

Silver Dirhems.

Mint.	Date.	Mint.	Date.
al-Andalus	129 A. H.	Sak al-Ahwaz	93
Jay	102 „	Manadhir	97
al-Sūs	95 „	Maisān	79 and 93.

Coinage of Abū Muslim.

Silver dirhem, B. M. C., Cat. 1, No. 216, but Darabjird, 129 A. H.

Rev. outer margin (Fig. 1): بِسْمِ اللَّهِ ۞ ضَرَبَ ۞ بِدَرَجِدَ ۞ سَنَةِ ۞
 ۞ ثَمَع ۞ وَعَشْرِينَ ۞ وَهَمَّة ۞

Similar but al-Ray, 130 A. H.

Rev. outer margin (Fig. 2): بِسْمِ اللَّهِ ۞ ضَرَبَ ۞ بِالرَّي ۞ سَنَةِ ۞
 ۞ ثَلَاثِينَ ۞ وَهَمَّة ۞

ABBASID CALIPHS.

al-Saffāh: Ardashir Khurrah: 185, A.

al-Manṣūr: Afrīkiyah, 144, A.; al-Kufah, 156, A.; Jandī Sabūr, 136, A.

al-Rashīd: Samarkand, 173, A.; Madīnat al-Salam, 177, A.

al-Ma'mun: Miṣr, 217, A., 218, A., as B. M. C., Cat. 259, A., and 263 m., A., the mint of which is Miṣr and not Madayn.

Arminīyah, 218, A.: *Rev.* area—

عبد الرحمن
 محمد
 رسول
 الله
 بن خاقان

The name of the Governor 'A'd al-Rahman b. Khakan appears to be new (Fig. 6).

Iṣfahān, 209, A.; Samarkand, 217, A.

al-Mu'taṣim : *Silver dirhems :*

al-Baṣrah, 220 A. H. ; Samarḳand, 225 A. H. ; al-Shāsh, 220 and 224 ; al-Muḥammadīyah, 226 ; Surra-min-rāa, 226 ; Marw, 220 A. H.

al-Wathīk : San'a, *N.*, 230 and 231 A. H., as *B. M. C.*, Cat. I, No. 313, but mint صنعاً, and beneath obv. area ايتاخ.

The name of the Turkish Emir Aitakh, a celebrated general of al-Ma'mūn and al-Wathīk, who was treacherously murdered by order of al-Mutawakkil, in 234 A. H. (848, 9 A. D.), has not previously been noted on a coin (Fig. 3).

Iṣfahān, 229, 230, *Ar.*, and Samarḳand, 227, 231, *Ar.*

al-Mutawakkil :

Dinārs : al-Baṣrah, 247 A. H., *N.* 65, wt. 65.9.

Surra-min-rāa, 233, *N.* 7, wt. 64.3.

Madīnat al-Salām, 244, *N.* 8, wt. 63.5 ; 247, *N.* 8, wt. 65.

Miṣr, 244, *N.* 85, wt. 63.8.

Samarḳand, 247, *N.* 7, wt. 65.1.

Dirhems : Iṣfahān, 232, 233 A. H.

Dabīl, 240.

Fārs, 234.

Marw, 236 A. H. (*B. M.* 331 h).

Do., 243, 244 (*B. M.* 332).

Mah al-Kufah, 233, 241, 245.

al-Muntaṣir : Surra-min-rāa, 248 A. H., *N.* 65, wt. 64.

Obv. and *rev.* legends as on *B. M. C.*, *Add.* ix, p. 65, No. 332 p.

This appears to be the only known gold coin of al-Muntaṣir's brief reign (Fig. 5).

al-Musta'in :

al-Shāsh, 248, *N.* 8, wt. 64.4.

Iṣfahān, 251, *Ar.*

al-Mu'tazz :

San'a, 252, *N.* 75, wt. 44.8 (2/3 dinar).

al-Mu'tamid :

San'a, 257, *N.* 75, wt. 45.2.

Do., 272, *N.* 75, wt. 44.4.

Do., 274, *N.* 75, wt. 45.9.

Madīnat al-Salām, 277, *N.* 9, wt. 64.5.

al-Ahwāz, 264, *Ar.* ; Bardā'ah, 279, *Ar.* ; Hamadhān, 256, *Ar.*

al-Mu'tadid:

al-Ahwaz, 281, 283; Shirāz, 280, Ar.
Hamadhān, 284.

al-Muktafi:

Filistīn, 294, A. 9, wt. 60.
Miṣr, 293, A. 9, wt. 66.

Dirhems: al-Ahwaz, 290 A. H.

Tustar min al-Ahwāz, 289, 290, 291.
al-Basrah, 290, 291, 293.

Harrān, 292.

Miṣr, 292, 294.

Dimashk, 284.

Mah al-Basrah, 290.

Ras al-'Ain, 293.

Nisibin, 294, 295.

Surra-min-raa, 293, 294.

Wasit, 290.

al-Kufah, 290.

Hamadhān, 295.

al-Muktadir:

Dinars:

al-Ahwaz, 309.

Filistīn, 301, 307.

Tustar min al-Ahwāz, 309.

Madinat al-Salam, 307.

Suk al-Ahwaz, 318.

Miṣr, 299, 306, 314.

Ardabil, 318.

Hamadhān, 296.

Dirhems: al-Ahwaz, 296, 298, 306, 310.

Suk al-Ahwaz, 296, 301, 312.

Tustar min al-Ahwāz, 295, 319.

Arrajan, 305 (the earliest Abbasid coin of this mint).

Harrān, 317.

Janāba, 299 (جَنَابَا) (Fig. 4). The only other coins of this mint of this period appear to be the Berlin specimen of the year 314 (Cat. No. 1679) and von Zambaur's specimen A. H. 306. The latter proposes to read Lavoix's no. 1153, Habulta (حَبْلَتَا), as Janāba (*Contributions*, Pt. I, p. 12, Pt. II, p. 80).

al-Rafīkah, 320.

Mah al-Kufah, 296, 305, 307, 308.

Ras al-'Ain, 298-309.

al-Muhammadiyah, 298.

Sinjar, 300, 317, 318.

Mosul, 301.

Shirāz, 299, 306, 308.

Nisibin, 303.

Fars, 298.

Wasit, 303, 309, 318.

al-Kāhir: al-Karkh, A. 85, wt. 77 (كَاكِر). There are dinars of al-Muktadir of this rare mint in Paris of the years 308 and 315 (Cat. Nos. 1130 and 1131) and Dr. Codrington has one of 318

(*Num. Chron.*, 1902, p. 272), but no coin of al-Kāhir of this mint appears to have been published.

Tustar min al-Ahwāz, 321, *Ar.*

Suḳ al-Ahwāz, 321, *Ar.* Sinjar, 322, *Ar.*

al-Rāḳī: Tustar min al-Ahwāz, 322, *Ar.*

Filiṣṭīn, 325, *Ar.*

Suḳ al-Ahwāz, 323, *Ar.*

Hulwan, 322, *Ar.*

No mint, *Ar.* 0.45, wt. 12.4.

Obv.—لا اله الا الله وحده | لا شريك له

Rev.—الله | بالرأسي | بالله

al-Nāṣir: Madīnat al-Salām, 575, *Ar.*

al-Mustanṣir: Madīnat al-Salām, 627, 639, *Ar.*, 626, *Ar.*

al-Mustaṣim: Madīnat al-Salām, 645, 650, 656, *Ar.*

ABBASID GOVERNOR.

Hishām b. 'Amru: *Æ* 0.8, Moṣul.

Obv.—Around لا اله الا الله

in centre in double square وحده

Rev.—In centre محمد

للمول

الله

around امير هشام بن عمرو بالموصل

Hishām b. 'Amru was afterwards appointed governor of Sindh in 151 A. H., and conquered parts of Kashmir and Multān.

J. ALLAN.

MISCELLANEA.

THE DATE OF THE "TRIBUNICIA POTESTAS" OF NERO AND THE COINS.

STUDENTS of Roman imperial history have long been familiar with the difficulties surrounding the dating of the "tribunicia potestas" of Nero. I do not propose here to go over the whole of the ground again,¹ but merely to offer a contribution to the problem from the side of numismatics—an important source of evidence, which in this point seems to have been, somewhat strangely, neglected. I need only recall the fact that the main difficulty is caused by the occurrence of **TR. P. VII**, not **TR. P. VI**, as we should expect, on an Arval Table, which can be dated with certainty to January 1, A. D. 60.

The dated coins of Nero of the imperial mint of Rome fall into two groups:

- (1) Aurei and denarii bearing the dates **TR. P.** to **TR. P. X**.
- (2) Sestertii and dupondii bearing the dates **TR. P. XI** to **TR. P. XIII** (**TR. P. XI** and **TR. P. XIII** are both rare).

The later aurei and denarii and the earlier "aes" coins are alike undated. Turning at once to the critical point, the year A. D. 60, we find **TR. P. VI** combined with **COS IIII** in the imperial title—Jan. 1, A. D. 60 onwards; that is to say, for the coins the difficulty of the Arval Table does not exist—**TR. P. VI** occurs exactly where we have a right to expect it. The dates **TR. P.** to **TR. P. X** will then run in normal course from December, A. D. 54–5, down to December, A. D. 63–4.²

¹ For details cp. Sandys, *Latin Inscriptions*, p. 237, or Cagnat, *Cours d'épigraphie latine*, p. 183.

² The fact that Dec. 4 or 11, not Oct. 13, was reckoned as the day of Nero's "tribunicia potestas" does not affect the case: it only meant the substitution of the beginning of the old tribunician year of the Republic for the actual date of accession, and certainly does not involve in itself the addition of one to the number of the "tribunicia potestas".

The dates of the "aes", **TR. P. XI** to **XIII**, then carry us on from December, A.D. 64-5, 65-6, 66-7, and so to 67—the last uncompleted year of the reign. Is there any reason to suspect a flaw in this apparently simple and uninterrupted system? None whatever that I can see. The date **TR. P. XI** (December, A.D. 64 onwards) is rare; but as this was exactly the point at which the reform of Nero took place and the dating passed from the gold and silver to the "aes", this rarity need not surprise us. The date **TR. P. XIII** occurs on a unique sestertius,* with *rev.* **S. C. Victory**, which almost certainly commemorates the victories of Nero in the Greek games. As Nero only returned from Greece to Rome early in A.D. 68, this coin should fall into his last tribunician year, and so, according to our dating, it does. The date **TR. P. XV** is unknown on coins; on the ordinarily accepted theory—that Nero in one way or another added one to the normal number of his tribunician years—it should, of course, occur.

It may be added that there are no types on the undated aurei and denarii which do not refer quite naturally to events of A.D. 64 and following years—the date to which we assign them. For example, the "Roma" type may have been suggested by the great fire of July 64; the "SALUS" and "JUPITER CUSTOS" refer, almost certainly, to the conspiracy of Piso, early 65.

To sum up, the coins show that there was an official dating of the regnal years of Nero, presenting no difficulty. Is there really sufficient evidence to make us believe, in the face of this, that such a difficulty existed? Is it not simplest to suppose that the date **TR. P. VII. COS. IIII** for January 1, A.D. 60, on the Arval Table is one of those blunders which are far from uncommon on inscriptions at all periods of imperial history?

* In the possession of F. A. Walters, Esq., F.S.A. (*Num. Chron.*, 1915, 331 ff.)

XI.

THE CHRONOLOGY OF THE COINAGE OF ANTIOCHUS IX OF SYRIA.

[SEE PLATES X, XI.]

SOME three years ago, during the third year of the war, I read the Society a paper on the iconography of the Syrian king whose mighty hooked nose won him the name of Antiochus Grypus. In dealing with him I was compelled to refer very frequently to his half-brother and lifelong rival Antiochus IX Philopator, more commonly known as Antiochus Cyzicenus, and promised to deal with his coinage at no very distant date. In 1917 and 1918 we had things more important to engage our attention than the numismatics of Seleucid kings: and the spare time to take up the topic was never granted me by the authorities who bear rule in Whitehall. In times less accidented, if no less interesting, I have at last found the leisure to redeem my promise of May 18, 1916. By the kindness of the Keeper of the Coins in the British Museum I am able to illustrate the history of the various issues of Cyzicenus by a series of casts from the national cabinet, now once more accessible to the numismatist after long tarrying in the bowels of the earth, during the unhappy days of sandbags and air-raids, which we are now doing our best to forget. The real joy of the Armistice

of November 11 last, from the point of view of the coin-student, was that it gave us access once more to old friends, who had long remained safe but invisible far below the feet of the pedestrian in London, W.C. I am also able to add a few specimens from the Paris Cabinet, of which casts were procured for me by the kind offices of M. Dieudonné of the Cabinet des Médailles, and from my own collection.

The interest in the iconography of Antiochus Grypus was that of tracing the development of his features, from the comparatively soft and pleasing profile of a boy of seventeen to the rugged and formidable outline of the war-worn adventurer of forty-six, with the all-dominating eagle's beak. In the case of his half-brother Cyzicenus the problem is a less simple one, for it must be confessed that while any observant eye can recognize the features of the Grypus of 125 B.C. developed by natural evolution into those of the Grypus of 96 B.C., the same logical process is not visible in the case of the younger king. If we had not the historical facts and dates before us, we could well have imagined that the different issues which bear the name **ΒΑΣΙΛΕΥΣ ΑΝΤΙΟΧΟΥ ΦΙΛΟΠΑΤΟΡΟΣ** belonged to two or even to three separate princes. In particular there is a group of coins at the end of the series which we should never have attributed to him, so much does the portrait differ from all the rest, if the inscription did not compel us to do so. Of this more in its proper place.

We must first set forth shortly the origins of Antiochus Cyzicenus. He was born in 136 B.C., the son of Antiochus VII Sidetes and his Egyptian queen Cleopatra, who had previously been the wife of Sidetes's

elder brother Demetrius II, and had borne him both sons and daughters. When Demetrius lost his crown and his liberty by being taken prisoner in battle by the Parthians, Sidetes appropriated not only the throne but the spouse of his captive brother; he was master of both for nine years, 138-129 B.C. Cleopatra bore him, so far as we know, only one child, who received the almost inevitable family name of Antiochus, like that one of his elder half-brothers, the sons of Demetrius II, with whom he was to spend his life in contending. When his father Antiochus Sidetes, after many successful campaigns and victorious battles, ended his career by falling in action in Mesopotamia, defeated by the Parthians, the Syrian crown reverted once more to Demetrius II, who had escaped from captivity. The restored exile resumed not only his old power but his former wife—Cleopatra remained as queen consort. She was a woman of unrestrained ambition, to whom husbands did not much matter so long as they wore the Seleucid diadem. It would appear that she detested the prince who was the companion of the first and third periods of her married life—at any rate there is good authority that she contrived, or was a consenting party to, the murder of Demetrius, when his political fortunes fell low, in 125 B.C. Possibly she preferred Sidetes, whose face and military record seem to show a much more powerful personality than that of the weak and unlucky Demetrius. Be this as it may be, it is certain that when she resumed her former relations with her first husband in 129 B.C., she sent her son by her second husband to be out of harm's way; he was only seven years of age when he became an exile, entrusted by

his mother to friends resident at Cyzicus on the Propontis, whence came the name Cyzicenus by which he is generally known, to distinguish him from his half-brother and rival Grypus. But this was a mere nickname—like Sidetes or Bala or Zabina or Grypus. Officially, when Antiochus took a distinguishing name in his later years, he called himself Philopator, in memory of his father, a prince of whom any son might have been proud, and a favourable specimen of a late Seleucid king.

We know nothing about the thirteen years which the exiled prince spent at Cyzicus, where he seems to have resided for the whole time between his seventh and his twentieth year, 129 B.C. to 116 B.C. In the first^{*} six years of this period civil wars in Syria were continuous—while Demetrius II and afterwards his widow Cleopatra and his son Grypus were contending with the usurper Alexander Zabina, from 129 to 123. Later on, after Grypus had slain his mother for her plots against his life, and reigned alone at Antioch, Syria had the last five years of domestic peace and freedom from civil wars that she was destined to know under the Seleucid dynasty (121–116 B.C.). It was Antiochus of Cyzicus who was destined to bring this period of quiet to an end. Grypus had involved himself in an Egyptian war—not, oddly enough, with the reigning king Ptolemy Soter II, to whom he was allied, but with his divorced sister-wife Cleopatra and his younger brother Ptolemy Alexander, who both were up in arms against the king. There was apparently grave discontent in some parts of Syria against Grypus: no doubt the faction that had once supported Zabina was still in existence, and ill-disposed towards his conqueror.

At any rate we know that in 116 B.C. Syrian malecontents got into touch both with Ptolemy Alexander and Cleopatra, and also with the exiled young Antiochus at Cyzicus. The latter alleged that emissaries of his half-brother had visited his place of refuge and tried to poison him—which may or may not have been true.

Having raised a small force of mercenaries in Asia Minor, Cyzicenus set sail for Syria, where (linking up the Egyptian and the Syrian civil wars) he met and married the divorced queen Cleopatra, who brought as her dowry a large body of troops which her brother Alexander had raised for her in Cyprus. Presumably the invaders landed in Phoenicia—what places first adhered to them we do not know, perhaps Tyre, certainly not Sidon, for we have coins of Grypus of that city dated 197 A.S., i.e. 115 B.C., so that it was in the elder king's hands as much as a year after the first landing of Cyzicenus in 116 B.C. On the other hand, we have Sidonian issues of his rival dated 113 and 112, of the earliest sort of money which Cyzicenus issued, which help us greatly with the iconography of the invader.

The first issue of this prince is undoubtedly that which displays him with a very young head, which might have belonged to a youth under, rather than over, twenty years of age. The pieces of this type are those numbered 1, 2, 3 of Plate X. This, the usual regal series, shows him with the title $\Phi\iota\lambda\omicron\pi\alpha\tau\omega\rho$, which he adopted in honour of his long-dead father Antiochus Sidetes, and has on its reverse the standing Pallas which had been the regular and wellnigh the only type of Sidetes. He had been almost the first Seleucid to introduce that goddess on the large silver

coins of Syria—earlier kings had preferred Apollo, though some of them had figured Zeus, Tyche, Heracles, and the Dioscuri.¹ The portrait on these early tetradrachms and copper small change of Cyzicenus seems to range over about five years: those dated after 112 B.C. display a somewhat modified physiognomy. The first type is the portrait of a young man whom it would not be too strong to describe as about the most silly-looking of the whole Seleucid dynasty. He does not display the marked aquiline nose of his father Sidetes—still less the formidable beak of his half-brother Grypus. His profile is straight not hooked, its main features being a very wide open eye with a staring or questioning effect, and a fixed smile. His chin is heavy, his neck thick. He always wears short whiskers, which grow in length as his years advance. It will be noted that in the coin No. 1 of the plate they only come down level with the lower lip, while in No. 3 they extend right down to the chin. The expression is anything but intelligent: one feels that the young king may conceivably have been eager and inquisitive, but that he certainly cannot have been clever. That a person with such a face should be found at the head of a desperate attempt to upset the rule of a well-established brother, suggests the deduction that he must have been the tool of his advisers and generals, rather than the organizer or inspirer of the adventure. And this conclusion is not inconsistent with the character of him given by Diodorus, who says that he was not without courage, and was a great hunter, but that he

¹ There is a unique tetradrachm, however, of Alexander Bala with a standing Pallas in the British Museum. *Seleucid Kings*, p. 52, No. 15.

was frivolous, and far more interested in actors, conjuring tricks, and ingenious mechanical toys than in affairs of state.² In his later years he took to hard drinking, a not unnatural result of a life full of even more vicissitudes than the average of his unlucky and adventurous family.

The reign of Cyzicenus falls into three periods—the first two short, the third much longer. He landed in Syria with his Egyptian wife and his mercenary army in 116 B.C. For four years he waged a progressively successful war with Grypus, apparently evicting him slowly from Phœnicia and Central Syria. In 113 B.C. he captured Antioch, but lost it again almost immediately after, the capital having been apparently surprised by Grypus during his absence with his main army. It was on this occasion that there took place the horrid murder of Cleopatra, his wife, by the machination of her sister Tryphaena, the wife of his rival, which I had occasion to mention when dealing with the history of Grypus. Whether in consequence of the general disgust caused by this atrocity, or for purely military reasons, Cyzicenus recovered Antioch almost immediately after, and had the poor satisfaction of putting to death his wife's murderess. Not only did he retake the capital at this time, but he succeeded in driving Grypus completely out of the country. After losing not only Syria but Cilicia also, the elder king had to take refuge among the pirates of Aspendus, on the southern coast of Asia Minor—not far from the

² As Mr. Bevan (*House of Seleucus*, ii. 253) remarks, this sounds like the description of many Indian princes of the last generation.

Side where his uncle Antiochus Sidetes had found harbourage in exile twenty years before.

Cyzicenus was now for over two years, 113-112-111 B. C., master of the whole remnant of the Syrian empire, save the single seaport of Seleucia, which held out obstinately in the name of the vanquished Grypus. These two years were the test of the character of the victor—with victory in his hands would he be able to reorganize the distraught and war-worn state of which he had become the complete master? The test went completely wrong—Cyzicenus proved incapable of hard work, frivolous, unable and unwilling to settle down to the dull routine of administration, a trifler who cared more for plays and banquets than for the responsibilities of power. In these two years he had completely disgusted his subjects, and when Grypus landed again in Syria with a mercenary army, Antioch and great part of the northern provinces promptly went over to him. Cyzicenus had to fall back on the south, where Coele-Syria and Phoenicia still adhered to him: apparently he made Damascus his headquarters.

What were the coins of the middle years of Cyzicenus, 112-111 B. C.? I had supposed three years ago, when I was studying the money of his rival, that to these years of his complete possession of the whole Seleucid dominions belonged two abnormal series, that with the reverse which represents the Pyre of Sandan, the special mintage of Tarsus, and the other whose type is not the regular standing Pallas, which was his usual device, but the same seated figure of Zeus which is found on all the later money of Grypus, and on most of that of the subsequent kings—Seleucus VI, Antiochus X,

Antiochus XI, and Philip. I am constrained to give up much of this theory on further consideration, for two reasons. The first and the more important is that we possess dated coins of these years 113-112-111 B.C., and that the portrait on them is still very young-looking, like that of the earlier issues of the civil war period, 116 to 113 B.C.. Three such pieces may be noted on the plate of illustrations—one (X. 5) of Sidon, dated Σ, the 200th Seleucid year, i.e. 112 B.C., the next (X. 4) dated 201 A.S., i.e. 111 B.C., and of that mint with a peculiar monogram which Professor Gardner, in his *Coins of the Seleucid Kings*, calls Sycamina, but which (following Mr. Rogers) I suspect to be the more important town of Seythopolis in Galilee. Both still show the very boyish face and the small whisker which belong equally to the coinage of Cyzicenus's earliest years. To them we may add a third piece (X. 6), also of a Phoenician mint, dated ΞΣ, i.e. Seleucid year 206 = 106 B.C., which shows that as late as that year Cyzicenus still wore whiskers only. The coins of Tarsus therefore with a small beard (e.g. X. 8) are not earlier than 106 B.C. and cannot belong to Cyzicenus's first occupation of that city. The second series, which I had wrongly attributed to 113-111 B.C., that with the seated Zeus, has a portrait unlike both of the last-named series. It gives the king with a shaven face of a more elderly type, with a full heavy jaw. I am driven to the conclusion that Cyzicenus in his last years took to the razor, after having worn whiskers as a boy and a short beard as a young man. Of this more hereafter, when we discuss his later reign.

Meanwhile we must note that Antiochus IX, after losing Cilicia and Antioch and being driven into

Coele-Syria in 111 B.C., had still many years of life and war before him. He was strong enough, despite his faults, or perhaps we should rather say that his faction was strong enough, to keep up the struggle against his half-brother. It lasted for no less than fifteen years longer, though for much of the time the war was not active, and there was a tacit if not a formal truce. Josephus says that the two kings left each other practically alone, 'like athletes who having failed to bring each other down by strength, are yet ashamed to retire, and protract their match with long breathing-times and rests'.

We are able to mark the change in Cyzicenus's personal appearance, during this time of the second civil war, by the fact that, although the majority of his later coins show no dates, yet exceptional ones display them—No. 7 on Plate X is dated with the Seleucid year ΗΣ, i.e. 104 B.C. It shows us that by this year the king had developed his whiskers into a small bushy beard completely surrounding his chin. This is a very scarce coin, with a type hitherto unknown on the Seleucid coinage, a standing Tyche with rudder and cornucopiae. The two Demetrii long years before had favoured a seated figure of the same goddess, but never a standing figure. From this crucial coin we may deduce that, of Cyzicenus's quite common tetradrachms with the standing Pallas, those with a short complete beard belong to the years about 104 B.C., while the more numerous class with a more developed beard and older features belong to the later years about 103-95 B.C. With the Tyche coin must be placed one equally rare, a Tarsiot tetradrachm showing exactly the same beard and portrait (X. 8).

Of the later Pallas tetradrachms two are shown in **Plate XI, Nos. 1 and 2**. They may easily be differentiated from the earlier issues with the same reverse, such as **X. 1, 2, and 3**, not only by the growth of the king's facial hair and the older features, but by the fact that the Pallas on the reverse is much more lumpy and badly drawn, and the inscription less neat, being in larger letters of the 'nailed' style, like those of the latest Seleucid kings in the first century B.C. Occasionally these late coins of Cyzicenus have the king's hair drawn in a very ill-kempt and untidy way, giving the impression that he had not paid proper attention to his toilet after one of his habitual drinking bouts. But the two chosen for illustration are not marked in this way—he is quite reasonably tidy. The series must obviously range all the way from B.C. 104, when we definitely find him with a full beard, down to nearly the end of his reign.

Somewhere in these years, and preferably towards the earliest of them, we must insert the second set of Tarsus coins with the reverse showing the Altar of Sandan, of which a specimen is given in **XI. 3**. The face on them is too middle-aged and the beard too well developed to make it possible, as I had once supposed, to allot them to the period of the reign of Cyzicenus 113–111 B.C., when he was in possession of Tarsus during the complete expulsion of Grypus from the Seleucid realm. This indisputable fact brings us up against one of the many gaps in our knowledge of the annals of the later Seleucid kingdom, for there is unfortunately no historical record of Cyzicenus having recovered possession of Cilicia and Tarsus at any date in the long civil wars of 111–95 B.C. We

must, however, suppose that some lucky expedition must have placed them in his hands for a certain time—close to 104 B.C.—without any notice of it being taken by Appian, Josephus, or any other historian. Now if Cyzicenus had possession of Tarsus for some time during these years, it is hardly conceivable that he did not get possession of Antioch also, for Cilicia cannot be overrun unless Northern Syria is first in the hands of the invader. I am constrained therefore to put into the same year or years as the striking of the coins with the Pyre of Sandan, a fairly numerous class of tetradrachms of Cyzicenus which shows him bearded, as on the Tarsiot coins, and bears the large mint-mark **A** which seems at this time to be a distinctive mark of the Antiochene mint. No. 1 in Plate XI is one of them. All these coins, with Cyzicenus's usual reverse-type of the standing Pallas and the large **A**, have a full beard, and cannot therefore belong to the time when Cyzicenus first held Antioch in 113-111 B.C., because he had not grown a beard, but was still whiskered even as late as the year $\varsigma\Xi = 106$.

Mr. Newell, in his new book on the Mint of Antioch, which reached my hands after I had written this paper, shows reasons for thinking that a third seizure of Antioch by Cyzicenus may have taken place about 109-108 B.C., using as his main evidence an inscription put up by Grypus at Seleucia in the last-named year, which seems to allude to a recent reconquest by him of North Syria. I think this date a little early and should prefer 106-105: for the features of Cyzicenus on some of these Antiochene coins look to me a little older than we might have been expecting. That they are not later than 104, however,

seems rendered probable by Josephus, xiii. 12-13, chapters that prove that, by that year, Cyzicenus was again in no condition to make expeditions far afield, being much vexed in Coele-Syria by the growing power of the Jews, who took Samaria, the southern outpost of Syro-Hellenism, in 108, and Scythopolis, the key of Galilee, a little later. So weak had the Seleucid power grown in the south that in 104-103 B.C. Ptolemais and Gaza sought succour against the Jewish king Alexander Jannæus from the hands of Ptolemy Soter, not from their native sovereign. The Tarsiot and Tyche tetradrachms therefore would seem to fall in all probability about 106-104 B.C.

Apparently the last chance of Cyzicenus to recover Northern Syria only came when in 96 B.C. his rival Grypus was murdered by his commander-in-chief Heracleon of Berrhoea, who then made a grasp at the Seleucid crown, but failed, like another ambitious minister—Tryphon—in an earlier generation, to keep it. But on Grypus's murder his half-brother took advantage of the confusion to invade Northern Syria, and to capture Antioch and undoubtedly Tarsus also. At the same time Grypus's widow Selene fell into his hands, and apparently not unwillingly: at any rate she consented to marry him. She was the sister both of his first wife Cleopatra and of Cleopatra's murderess Queen Tryphaena, and can hardly have been much under forty at the time.²

To this year, as I am driven to conclude, we must assign the altogether abnormal issue of tetradrachms, drachms, and copper of Antiochus Cyzicenus, both at

² Porphyry Fragment 23.

Antioch and at Tarsus, with an elderly face but a completely shaven chin. Did he perchance shave to celebrate his marriage with Selene? The lady had owned two husbands before, each of them with a smooth chin—conceivably she disliked beards. At any rate we have to accept the fact that most of these issues are struck at Antioch, since they bear as reverse the great statue of Zeus seated, which had been employed before by Antiochus IV and V, Alexander I and II, and now for the last fifteen years by Grypus himself, who had regularly used the type since his return from exile in 111 B.C. There can be no doubt about the money being that of Cyzicenus—no other late Seleucid king was called simply Philopator, the title displayed on all this issue. And if we try to deduct the beard from the latest Pallas-reverse coins of Cyzicenus, the upper part of the face, the nose, and staring widely opened eye are fairly in correspondence with the new issue. I do not think the king's appearance was much improved by his shave—if he had before looked rather untidy, he now looked very heavy, "jowly", and stupid—as witness the coins 4, 5, 6, 7, 8 of Plate XI. It will be noted that while the tetradrachms and the copper give the seated Zeus as type, a neat little drachm with the same portrait (XI 7) has the standing Tyche, which we have already seen eight years before on the very rare tetradrachm of the year ΗΣ. The other drachm is Tarsiot, and shows Sandan *not*, as usual,* on his pyre [XI. 4]. Presumably the drachm XI. 7 is not of Antiochene mintage, but struck at the same town that issued the Tyche coins of 104 B.C. Of the specimens shown the second tetradrachm, XI. 6, is from the British

Museum, and the first, with the Tarsiot type of the Pyre of Sandan, is from Paris, XI. 5. The drachm, XI. 4, belongs to Mr. Rogers.

Cyzicenus only survived his capture of Antioch and his second marriage for a year. In 95 B.C. the sons of Grypus rallied their father's party, and renewed the interminable civil war that had raged since 116 B.C. The eldest prince, Seleucus, assumed the diadem, and the title of Epiphanes Nicator: several cities fell away to him at once. Had Cyzicenus been drinking too deep, or displaying again the frivolity of his youth? At any rate he could not keep what he had won. But never destitute of courage, he marched out against his nephew, brought him to a general action, was beaten and was slain. Josephus says that he fell alive into the hands of the enemy, and was at once killed. Eusebius alleges that his horse ran away with him into the hostile lines, and that he stabbed himself when surrounded rather than surrender. At any rate he suffered at the age of forty-one the usual fate of his race. His rival Grypus had perished in his forty-seventh year. No Seleucid king had died a natural death since Antiochus IV in 164 B.C., and in the intervening sixty-nine years ten monarchs of the house had ruled in Syria.

Nor did the slaughter cease now. Seleucus VI was, like the uncle whom he had vanquished, to reign at Antioch for a single year only—he was dead by violence ere 94 B.C. was out, after having suffered a crushing defeat at the hands of Cyzicenus's son and heir Antiochus Eusebes Philopator, who took up at once the leadership of his dead father's party. The rivalry of the two brothers Antiochus Sidetes and Demetrius Nicator was to extend to the third

generation, and to consummate the ruin of the once-great Syrian kingdom.

NOTE ON THE ILLUSTRATIONS.

- In Plate X, Nos. 1, 4, 5, 6 are from the British Museum.
 No. 8 from the Paris Cabinet.
 Nos. 2, 3, 7 from my own cabinet.
- In Plate XI, Nos. 1, 3, 6, 8 are from the British Museum.
 No. 5 from the Paris Cabinet.
 Nos. 2, 7 from my own cabinet.
 No. 4 from the cabinet of Rev. E. Rogers.

C. OMAN.

XII.

SOME FURTHER NOTES ON THE COINS OF CHIOS.

THE dispersion of the late Sir Hermann Weber's collection and the recent sale in Paris of the Talbot Ready collection of Greek coins have provided me with a little new material which I feel it my duty to put before the readers of the *Numismatic Chronicle*.

The opportunity of inspecting the Weber coins once more has enabled me to clear up the doubt attaching to the name *Πύθιος* (see Period X, type No. 71, *Num. Chron.*, 1917, pp. 219 and 239).

The coin there described as bearing this name, now in my collection, is not in very good preservation, and, Sir H. Weber having read the magistrate's name as ΠΥΘΙΟΣ, I had followed his reading without sufficiently testing its accuracy. For this I wish to express my regret, partly mollified though it is by the satisfaction that I feel at the disappearance of the unlikely-looking *Πύθιος* from the list of Chian magistrates.

The letters actually visible on the coin are .ΥΘΙΩ., and it is now clear to me that they should be restored as ΠΥΘΙΩΝ. This name has already been identified on two coins attributed to the type referred to above (see also Supp. to the coins of Chios, *Num. Chron.*, 1918, p. 78), and the present piece agrees with them in

all particulars except that the Sphinx does not raise its farther forepaw over the bunch of grapes. Similar varieties of obverse dies are to be found among the issues of other magistrates belonging to this period, e.g. ΜΗΝΟΔΩΡΟΣ of type No. 71, ΔΙΟΔΩΡΟΣ of type No. 72, and ΔΕΚΜΟΣ of type No. 73.

It would have been better on the whole if these coins with Πυθίων had been included among those of type No. 75, since the relief is higher than that particularly characterizing type No. 71, and the Ο, as in ΧΙΟΣ, is of the same size as the other letters. This only exemplifies the difficulty of trying to classify the varied issues of the first century B.C., to which I drew attention when describing the coins of Period X.

I was fortunate enough to secure a small lot of Chians from the Ready sale, No. 453 of Messrs. Feuermann Frères' catalogue, among which are the two following unpublished varieties.

1. Period VIII, 334-190 B.C. Type No. 56 γ. (See *Num. Chron.*, 1916, p. 288 and Pl. x. 4).

Obv.—Sphinx of good style seated l. on plain exergual line, wing curled in conventionalized manner. In front of it small bunch of grapes.

Rev.—Amphora with narrow neck and pointed tip between ΝΙΚΟΜΗ[ΔΗΣ] r. and ΧΙΟΣ l. Incuse circle.

Æ. ↑↓ 16.75 mm. Wt. 58.8 grains (3.81 grammes).

As will be seen by consulting the list given on pp. 73-5 of *Num. Chron.*, 1918, this magistrate's name is a new one, and the restoration suggested seems practically certain.

From the style of the lettering, which is small and neat like that of the earlier classes of this type, No. 56 α and β, and the incuse circle, not previously

observed on coins of No. 56 γ, it would appear that *Νικομήδης* held an earlier term of office than the five or six other magistrates attributed by me to the last-named class.

2 Period IX. 190-133 (?). Type No. 63 a. (See *Num. Chron.*, 1916, pp. 312-13 and 315, and Pl. xi. 13.)

Obv.—Sphinx of inferior style seated l. on plain exergual line and holding up bunch of grapes in farther forepaw. Wing curled in naturalistic manner, hair rolled, the tail bears a tuft, and the breast is indicated. Border of dots.

Rev.—Long thin amphora with *ΙΗΝΟΔΟΤΟΣ* r. and *ΧΙΟΣ* l. (letters with "apices"). No symbol. The whole in vine-wreath tied below showing leaves and tendrils. No trace of concave field.

R. ↑↑ 18.50 mm. Wt. 57.6 grains (3.73 grammes). Attic drachm.

Although not new, like that on the last coin, the magistrate's name on this one is of even greater interest, since it supplies one of the very rare links that exist between the Alexandrine tetradrachms and the Attic drachms of Chios, *Ζηρόδοτος* having already been noted on one of the former in the British Museum collection (*Num. Chron.*, 1916, p. 307).

The style of this coin in its broader aspect, the dispositions, and the "apices" and *Ι* of the lettering are all in agreement with the issues that I have selected as the contemporaries of the Alexandrine tetradrachms of Müller's Class VI. Some slight differences between the coins then described and the present one—the raised forepaw of the Sphinx, for instance, and the more florid type of vine-wreath on the reverse—would necessitate the creation of a new sub-type, No. 63 γ, if it were thought desirable to continue my original

arrangement. This would also have the effect of moving up the single coin forming type No. 66 *a* to the same place. It is struck from the same obverse die as the coin now under discussion, and the wreath on its reverse is probably of the same type also, intermediate, that is to say, between those of types No. 63 *a* and Nos. 66 *β* and 67. This is apparent from the better preserved reverse of the new coin. No disarrangement in the general sequence would be entailed, since type No. 66 *a* was the immediate successor of No. 63 *β* among drachms. In fact the discovery of the present drachm confirms the position in the series already assigned to the one with **ΑΝΔΡΩΝΑΣ**, though it also fixes a more precise *terminus ad quem* for it than was possible before.

In addition to the above, the lot from the Ready sale included two specimens of type No. 62 *a* that have been struck over the previous bronze issue, type No. 56 (see *Num. Chron.*, 1916, pp. 299-300 and 309-10). They bear the names **ΗΡΟΣΤΡΑ[ΤΟΣ]** and **ΘΕΡΣΗΣ**, and on the reverse of the former the letters **ΑΓ** - - and the neck of the old amphora are visible above the **Η** of the new inscription. These are presumably the two first letters of the name **ΑΓΓΕΛΗΣ** recorded under type No. 56 *a*. It seems worth while to draw attention to these overstruck coins on account of their rarity, and besides, I have not so far been able to decipher any magistrate's name or part of such name upon any of them with the exception of **ΗΡΙΑ[ΑΝΟΣ]** as recorded p. 288 of *Num. Chron.*, 1916.

J. MAVROGORDATO.

XIII.

ORIGINS OF THE IMPERIAL COINAGE IN REPUBLICAN TIMES.

THAT the Roman Empire, thanks to the conservatism, genuine or feigned, of its founder, borrowed all, or almost all, its institutions from the Roman Republic, is a fact so familiar to-day to students of Roman history as to be almost a truism. Julius Caesar was capable of bold innovation and defiance of tradition; Augustus strove consistently to mask reform with constitutional precedents. The office of Emperor itself—in essentials little removed from the first from an autocracy—was, in form, a compound of various powers already familiar to the Republic—the “*tribunicia potestas*”, the “*imperium*” of the general abroad, some part of the authority of the Consul in Rome.

It is, then, not without good reason that we look back to the Republic for the sources of the Imperial system of coinage, expecting to find it no new creation of Augustus, but the direct successor of some Republican institution.

Yes, the reader may say, this is all very true, but rather obvious: the Republic had had for centuries an established system of coinage in Rome, and, doubtless, the Imperial system is immediately derived from that. But it is just here that the real point of interest lies. The Imperial system is not in the direct line of

descent from the Senatorial. Authorities of weight, it is true, have maintained that it was; Grueber, following De Salis, has traced the beginning of Augustus's Imperial coinage to a decree of the Senate passed in 36 B.C. (not mentioned in history) conferring on him the right to coin gold and silver with his portrait in Rome: Mommsen made 15 B.C. the decisive year—the year in which Augustus finally took over coinage in gold and silver from the Senate, leaving that body the coinage in “aes”. Full justification of a new theory is therefore required, and will, I trust, be found later in this paper. But against the theories quoted above I may urge at once (1) against Grueber's—that the decree of the Senate in 36 B.C. is simply inferred and rests on no historical evidence, and that the coinage of Augustus, except for the small series bearing moneyers' names and certainly struck in Rome, shows no connexion of style with the Senatorial; (2) against Mommsen's—that the main “fact” on which he bases his theory—the end of the coinage of gold and silver and the beginning of the coinage of “aes” by the moneyers in 15 B.C.—has since been conclusively disproved. The moneyers started to issue “aes” in 23 B.C.; they continued to issue gold and silver down to 13 B.C. The whole theory, then, needs to be thoroughly re-examined.

It is not, I believe, in the Senatorial mint of Rome that we have to seek the origins of the Imperial currency. It is certainly unlikely that it was a creation entirely “de novo”. We have, then, to inquire what other forms of coinage were known to the Roman Republic and whether they have any bearing on our problem. The answer lies near to hand, but it

may be of interest and value to give it in some detail.

From a very early period—perhaps from the very beginning of silver coinage at Rome in 268 B.C.—money was issued by the Romans, “extra muros”, at various local mints in Italy. These issues, indistinguishable in type from the city issues, bear distinguishing mint-marks. They were probably designed mainly for military purposes—when Roman armies were operating at a distance from Rome and could best be supplied from a local mint, such as, for example, Luceria. The Romano-Campanian issues of an earlier period, contemporary with the “Aes Grave”, were probably similar in character, though, in the absence of a mint for silver at Rome, their local character was far more pronounced. The issues, bearing mint-marks of towns, only last over quite a short period, about 240–217 B.C.; but, even after their cessation, there are varieties of style and fabric in Roman silver which lead some authorities to postulate local minting in Italy down to as late a period as the Social War. This is the view of De Salis, admirably set out in detail in Grueber’s Catalogue, and, though it may not be accepted in full by all critics, it will probably be agreed that local issues were not entirely unknown even in the second century A.C. But there is one feature in this coinage which must never be forgotten. Although probably it primarily served military purposes, it was struck, so far as we can gather from the evidence available, under the authority of the Senate; it was not struck by the general in the field in his own right. And in all the foreign campaigns of the second century, the wars in Spain and Africa, the struggles with Philip and Perseus of Macedon and with Antiochus

of Syria, no Roman denarii were struck abroad for the use of the legions. This shows how very jealously the Senate guarded the right of coinage, and how unwilling it was to allow magistrates to share in it. It is, incidentally, a flat contradiction of the theory stated by Mommsen "that the general—dictator, consul, praetor, proconsul, proquaestor, or plain IMPERATOR—had, as a direct consequence of the IMPERIUM with which he was invested, the right to strike coins and could exercise that right, through his quaestor or his proquaestor, over the entire extent of the provinces under his authority". Mommsen himself can quote no evidence for his view earlier than 83 B.C., and it is only for the period after that date, and then only with certain qualifications, that we can admit it to be true. Mommsen had an intellectual passion for the broad generalization, which he indulged at times further than strict historical evidence could justify. We must, then, emphasize the fact, that not before 83 B.C. have we any evidence of a Roman Emperor, in virtue of his Imperium, striking coins for his troops.

Let us next examine the conditions under which coinage by the Emperor actually does start.

Certain examples are :

C. Annius Luscus in Spain, *circ.* 82–80 B.C., in the war against Sertorius. He strikes as PROCOS, through his quaestors, **L. FABIUS** and **C. TARQVITIVS**, by Senatorial authorization—**EX S C.**

C. Valerius Flaccus, in Gaul, *circ.* 82 B.C. (or, conceivably, in Spain a few years earlier), as IMPERATOR—**EX S C.** No quaestor named.

L. Sulla, in the East, *circ.* 82–81 B.C., as IMPER. ITERVM, no quaestor named, and as IM. through his

proquaestor **L. MANLIVS**; and in the East, *circ.* 81 B.C., as **DICTATOR**, through his quaestor **A. MANLIVS**. No **EX S C**.

Q. Caecilius Metellus Pius, in Spain, *circ.* 78 B.C., as **IMPERATOR**. No mention of quaestor. No **EX S C**.

Cn. Pompeius Magnus; as **PROCOS**. No quaestor named. No **EX S C**. Date and place of minting uncertain (66 B.C. or 61 B.C.?, probably in the East).

Mommsen, believing, as he does, in the full right of the Emperor to strike money, finds the **EX S C** on the coinage of Luscus and Flaccus rather surprising, and conjectures that its presence there is simply due to the fact that Sulla insisted on exceptional regard being paid to his restored Senate. I think it more reasonable to accept it as a perfectly natural phenomenon at the beginning of this new class of coinage. These earliest issues bear the mark of Senatorial authorization:—the Senate, while tolerating the innovation, still insists on its supreme right over all Roman coinage. If Sulla, striking as **IMPERATOR ITERVM** in the East, omitted the **EX S C**, this is fully accounted for by the fact that he held no official relations with the Senate of the time—was in fact, strictly speaking, a rebel. In the later issues, however, there is no **EX S C**, and it must be admitted that the Senate's right of control was soon disputed, and, once removed, never restored. This is surely an illustration of the general tendency of the later Republic—the tendency for the general to emancipate himself from Senatorial control and assume rights unknown to a Scipio or a Flamininus.

It was at this stage of development that the Civil War between Caesar and Pompey broke out—the

right of coinage by the Emperor in the provinces, independently of the Senate, being recognized, but only occasionally exercised. The Civil Wars allowed a full and rapid development to the new tendencies. With the flight to the East, the Senate's hold over coinage broke down almost entirely. On the Senatorial side, we find, before Pharsalia, coinage of the Consuls of 49 B.C. with Q. (Quaestor) on the reverse (Eastern mint), and of Q. Sicinius IIIvir and C. Coponius pr. with S C (Eastern mint), and again of the Consuls of 49 B.C. (Sicily). The coinage is exceptional, but still follows the constitutional precedents of the Roman mint. After Pharsalia, however, the whole coinage is of the new "military" type—compare the various issues of Q. Metellus Pius Scipio as IMP. in Africa, alone or through his legates, P. Licinius Crassus Iunianus and M. Eppius (47–46 B.C.), of M. Porcius Cato as PRO PR.(aetore) in Africa (same date), of Cn. and Sextus Pompey as IMPERATORES in Spain (46–44 B.C.). There is no allusion to the Senate among the Senate's own supporters.

On the opposing side, Caesar, as we might expect, struck, in his own right, in Gaul, Spain, Africa, and the East. His normal title on these coins is simply Caesar; he was Imperator, no doubt, but he was also something more than the ordinary general, something that was best expressed by the use of his bare name.

At Rome, where he found the Senatorial mint, with all its traditions, in existence, his procedure was somewhat different:

(1) He issued his first silver through special officers of his own, but soon restored that coinage to the

regular IIIviri—in 44 B.C. he increased the number to four.

(2) He struck gold in Rome through his own special officers; the earliest pieces bear the name **CAESAR** alone.

(3) In 44 B.C. the Senate authorized him to place his portrait on the coinage. He was the first living Roman to enjoy this honour—an honour that implied a fatal breach with pure Republican tradition.

(4) He gave posts at the mint to slaves of his own (*"monetae peculiares servos praeposuit"*.—Suetonius).

Caesar's death leaves us, however, in other points, uncertain as to his precise intentions; the evidence available suggests that he intended to bring the mint under his own control and virtually substitute a personal for a Republican coinage.

The death of Caesar gave a brief respite to the dying Republic. Silver was issued under Republican forms by the IIIviri of the mint, and gold, first by **PR**-*praefecti* (? *praefecti urbis*), later by the IIIviri. But the position of Mark Antony in the State was dangerously near that held by Caesar; one of the moneyers of 44 B.C. actually placed Antony's portrait on the coins. And, when the quarrel of the Senate with Antony finally ended in the establishment of the triumvirate of Antony, Octavius, and Lepidus, Republican liberties were once more in a parlous plight. For the year 42 B.C. a compromise at the mint was arrived at: the four moneyers struck in gold and silver partly with heads of the triumvirs as obverses, partly with purely Republican types. The only other moneyers assignable to this period, Q. Voconius Vitulus and Ti. Sempronius Gracchus, omit all reference to Antony

and Lepidus and show only the portrait of Octavian. Their coinage would seem to belong to a period of estrangement between Octavian and his colleagues—probably 41-40 B.C. (Perusine War).

After this the Senatorial mint of Rome for gold and silver closed for a long period, only to reopen once more for a short spell, *circ.* 17-13 B.C. under Augustus. The personal coinage, inaugurated by Caesar and continued by the triumvirs, failed to establish itself in Rome. But the Senate was unable to reassert its rights; coinage passed for the time to the provinces, where it followed the precedents of the military coinages of the preceding generation.

Let us turn to the provincial coinage of the period. Before the formation of the triumvirate, Lepidus, Antony, and Octavian all struck as **IMPERATORES**, in Gaul and probably in camp in Italy. After its formation, coinage divides into two main streams:

(1) Coinage of the IIIvirs themselves, who act as the supreme authority in the portions of the Roman world severally assigned to them, issued by them directly without mention of any subordinate, or, by delegation, through their legates. The minor authorities who superintended the coinage, the quaestors, are sometimes mentioned, sometimes not. This coinage is of the same general character as that of the Imperator already discussed. The one difference is that the IIIvir stands one degree higher than the Imperatores coining under his auspices. The IIIvirs claim the obverse for their own portrait, but often associate, with their own, portraits of their colleagues or of members of their family on the reverse (cf. portraits of L. Antonius, brother, M. Antonius, son, Octavia,

wife, on coins of Mark Antony). They naturally issue their coins within their sphere of government—Antony in Gaul and then in the East, Octavian in Gaul, Africa (?), and Italy (?), Lepidus in Africa. In seeking to determine mints, we must admit the possibility of coinage actually within the camp (the “*castrensis moneta*” of Lucan, I. 380). Of the issues of Octavian assigned by Grueber to Gaul, a part at least, I believe, was struck in Italy “*extra muros*” at Octavian’s military head-quarters. The same is possibly true of some of the issues of Antony.

(2) The other stream is represented by the coinage of opponents of the triumvirs who struck as Imperatores on their own authority. The tyrannicides Brutus and Cassius in the East struck on the same model as the IIIvirs—as commanders-in-chief, with legates subordinate to them. Like the IIIvirs they assumed the right of portraiture. The defenders of constitutional government had, in fact, developed the new theories of coinage as far as had the usurpers themselves. Sextus Pompey, similarly, issued his own coins, personally and through his legate, Q. Nasidius. Where we find a plain Imperator coining, it is a man like Ahenobarbus or Murcus, who is temporarily out of touch with the triumvirs and playing for his own hand.

The main point of importance that emerges from our inquiry is that the old system of coinage was entirely in abeyance and left the field to the “military” coinage of the provinces, with which we first became acquainted in 83 B.C. This “military” coinage has advanced a whole stage in its development; the IIIvir, virtually an autocrat, combines under his one authority

the coinage of Imperatores over a large district. The portrait of the IIIvir tends to monopolize the obverse. The coinage is, in fact, essentially Imperial, not Republican; but there are still rivals for the supreme authority and their power is not yet settled on a permanent constitutional basis.

Such were the conditions with which Augustus had to deal, when Actium gave him the mastery over the Roman world. On what lines was he to solve the problem of coinage?

(a) Was he to revive the Senatorial mint of Rome as the main source of supply for the world? It was a possible solution, but Augustus, as we know, did not accept it. He probably considered the right of coinage in the precious metals too important a one to relinquish. He must have felt that he had done enough, when he placed the restored "aes" coinage of 23 B.C. onwards under Senatorial supervision. The coinage of the moneyers in gold and silver (*circ.* 17-13 B.C.) looks like an experiment on a small scale, and it was never repeated.

(b) Was he to replace the Senatorial by a great central Imperial mint of Rome? This was, in a sense, the natural solution; Caesar, we have seen, appears to have aimed in that direction, and his successors ended, in this point as in many others, by following his lead. But Augustus did not take it. There is strong reason to believe that, of his gold and silver, only that part which bears moneyers' names was struck in Rome. Many scholars, I know, will find it very difficult to accept this denial of what has till recently been taken as matter of fact. But, when it is fully realized that there is no evidence of an Imperial mint of Rome

under the reigns of Augustus and Tiberius, that, on the other hand, there is direct evidence of Imperial mints in the provinces—notably, the great mint of Lugdunum from about 16 B.C. onward—and that there are good reasons to show why Augustus should have avoided Rome and chosen provincial mints in preference, it will, I believe, in the end be generally admitted that what at first sight appeared probable is in this instance not the actual truth. Augustus, I suggest, did not centralize his coinage at Rome :

(1) Because he wished not to offend conservative sentiment by an exercise of the right of coinage, which he held as Imperator in Rome itself, where his military Imperium was in abeyance. To have closed the Senatorial mint was enough of a blow to constitutionalists.

(2) Because he found in existence a system of coinage which, without any new reform, could easily be adapted to the needs of the Empire. Augustus resigned his exceptional powers as triumvir, but the special Imperium granted him gave him the substance of all that he surrendered. As **IMPERATOR**, in that new and extended use of the word from which our word "emperor" springs, Augustus undertook to supply the world with its gold and silver coinage. The names of subordinate Imperatores only appear exceptionally on his coins (cf. P. Carisius in Spain, 24-22 B.C.); for the most part, Augustus allows no name or portrait but his own. As to the exact methods employed by him in working this system and the mints at which the coins were issued, there is still considerable room for discussion, and I am trusting that my friend, the Rev. E. A. Sydenham, will soon

clear up some of these difficulties when he publishes his recent researches on the subject.

In the period 31-14 B.C., there were large issues from Eastern mints, small issues, probably late in the period, from Lugdunum, and other large issues from a great Imperial mint, the place of which is hard to determine, but which was apparently in the West of the Empire but not at Rome. I purposely state the case vaguely, leaving the detailed discussion of difficulties to Mr. Sydenham. The final solution of Augustus was the establishment of a great central mint at Lugdunum, *circ.* 14 A.C., which for the rest of his reign and the reign of Tiberius supplied the Roman world with gold and silver coinage. Details still remain to be worked out, but for the main points involved I would refer to Laffranchi's articles in *Rivista Italiana di Numismatica*, 1912 ff., and to my own paper on the "Mints of the Early Empire" in the *Journal of Roman Studies*, 1917, Pt. I.

I will conclude by restating the contentions which I have been endeavouring to sustain in this paper: ¹

(1) The Imperial coinage is not the direct successor of the Senatorial coinage of Rome.

(2) Military coinage, in Italy, under Senatorial control, was certainly known in the third century A.C. Military coinage in the provinces only started *circ.* 83 A.C. It was directed by the Emperor, but the authorization of the Senate was at first required.

¹ Some portions of my argument will already be familiar to readers of Lenormant, *La Monnaie dans l'Antiquité*, tom. 3, pp. 176 ff.; Hill, *Historical Roman Coins*, pp. 102, 119 ff. It will be seen that I am pushing some points generally admitted to what I believe to be their necessary conclusions.

(3) This military coinage, during the period of the Civil Wars, 49-31 B.C., encroached more and more on the Senatorial coinage of Rome and in the end ousted it. The attempt of Caesar, and after him of the triumvirs, to establish a personal coinage on the basis of the Senatorial mint failed. The coinage of the IIIvirs in the provinces is, in all essentials, not Republican but Imperial in character. The vital change came when, as a supreme instance above the Imperator, appeared not the Senate but the IIIvir.

(4) Augustus founded his system of coinage on this new basis, deriving his authority from his "imperium" in the provinces. The one definite change was that he left the coinage in "aes" to the Senate at Rome. This important fact is unquestionable, and that is the one reason why I have not insisted on it. The "aes" coinage had been more or less in abeyance since about 82 B.C. Caesar in Rome (or Italy), the two younger Pompeys in Spain, Octavian in Gaul, Antony in the East, had all issued "aes", but no regular and permanent system had been evolved, and in this department of coinage a real reform was necessary. There were solid reasons to be urged why the issues of what was, to some extent, token money should be under the authority of the Senate, rather than left to the discretion of the supreme ruler, and these reasons evidently weighed decisively with Augustus.

The results thus arrived at have the advantage of harmonizing with what we know, in general, of the origins of the Empire. The Emperor himself was the direct successor of the general in the provinces, who, trusting in his army, asserted his independence

of Senatorial checks. From the time of Marius and Sulla, when military forces first overrode the constitution, the Republic, we now see, was doomed; the Senate, weakened in its moral authority, could nowhere find the reserve power necessary to reduce the provincial governors and commanders of its armies to complete subordination. The military dictatorship, in one form or another, was inevitable; it was simply the political genius of Augustus which enabled him to find forms which might seem to harmonize with a Republican constitution. And it was from the most essential part of the Imperial power, the supreme military command, that Augustus derived his right of coinage; possessing it thus from the first as a part of his "imperium", he did not seek or need to seek a special conferment of it on him by the Senate. Whether, when the Imperial mint was opened in Rome—probably under Caligula—the Senate was consulted and asked to give its consent, we cannot say; probably the technical legality was not as seriously resented, when the Empire had become an established institution, as it might have been if committed by Augustus at its inauguration.

H. MATTINGLY.

NOTE.—Mr. Sydenham calls my attention to a small group of coins of Octavius as *Illvir R.P.C.*, which bear *S. C.* on reverse (Grueber, ii, pp. 399 ff., 409 ff.). The explanation which he suggests, and which I accept, is that they were struck in Italy, where the Senate still retained some claim to authority.

He also suggests that Augustus in 27 B.C. may have temporarily resigned his right of coinage, together with other exceptional powers. This interesting suggestion will be worked out in more detail in his paper.

XIV.

THE REFORM OF AURELIAN.

MR. SYDENHAM, in his excellent treatise on the Roman Monetary System, a very mine of information, judiciously collected, weighed, and made accessible, comes to the conclusion that Aurelian, when he improved the coinage, did not attempt to reinstate the discredited antoninianus, but substituted for it a piece which might logically have been known as a double denarius, but was simply called by the familiar name of denarius. The object of the present note is to suggest that certain considerations point in another direction, and that the Emperor attempted no more than the restoration of the then existing series of coins to as near its original condition as the troubles of his time would permit. Mr. Sydenham is, of course, under the burden of verifying his conclusion either by historical record or by circumstantial evidence, a form of proof which must not be accepted if there are any facts inconsistent with it.

The chain of evidence commences with the reform of Caracalla, who endeavoured to rectify the inconvenience arising from the degeneration of the denarius by the introduction of the antoninianus, reckoned at one denarius and a half, and, as the older coin stood in the relation of 25 to the aureus, so the new coin bore the inconvenient relation to the latter of 16 $\frac{2}{3}$ ds to 1.

Caracalla died in A. D. 217 and the two coins remained in issue down to the reign of Gallienus. Some emperors struck more of the one and some of the other, but the period was only marked by one attempt at reform or restoration, that of Severus Alexander (d. 235), who issued no new coin, but improved his denarii in style, weight, and alloy. The last large issue of denarii was under Gordianus Pius (d. 244), but they were issued in small numbers even in the reigns of Gallienus (d. 268) and his contemporary Postumus (d. 267).

The earlier antoniniani of Gallienus were struck in white metal, like those of his predecessors, but at some period in his reign a new practice was introduced, and coins were struck in an alloy so base that they would have appeared to be mere bronze had they not been surfaced with white metal.

In the latter years of his reign, and the short period of two years which elapsed between his death and the accession of Aurelian, in March 270, the coinage reached its greatest degradation, and hardly any pieces other than debased antoniniani were issued. Their size and weight decreased and their silver wash was so poorly applied that it soon rubbed off. It is difficult to find traces of it now, but sufficient specimens remain to show that the coins, when first issued, did attempt to maintain the colour of antoniniani as well as their design.

Such was the position which Aurelian faced when he undertook his reform in 271. As the last degradation of the currency had only commenced a very few years earlier, there must have been in circulation both good and bad specimens of both coins, the best of them of less value than their proper proportion to the aureus,

the worst (with all deference to Sig. Dattari) the merest tokens; but they still bore the same denominations.

What evidence is now available to show the exact nature and effect of the reform?

Historical evidence is very slight.

The famous letter of Aurelian, which is probably apocryphal, gives no details of the reform, but we have the statement of Zosimus that the Emperor "restored the public credit by delivering out good money in exchange for the bad, which the people were commanded to bring into the Treasury". This is entirely consistent with the view that the Emperor merely attempted to reinstate the antoninianus. One can hardly think that the author would have so written without mentioning the issue of a new coin, had that step been taken. We have also the expression "*Argentei Aureliani*", which may only indicate that the reformed coins of Aurelian were distinguishable from their immediate debased predecessors. Also it would be consistent with a small alteration in tariff, which may have taken place without any alteration in denomination.

Historical evidence is therefore, on the whole, against reform and in favour of restoration.

Turning to the coins themselves, we find that specimens of the radiate reformed coins of Aurelian regain the size and exceed the weight of the antoniniani of the early period of Gallienus (reaching that of many of his predecessors) and, so long as they retain their silver coating, they are like them in appearance.

If they were thrown together with those of earlier reigns, a person ignorant of numismatics would have

to examine the portraits and inscriptions before he could separate them. Why should the new coin, intended, as is suggested, for a new denomination, or at least a denarius of new value, be carefully designed to bear the exact appearance of the coin that it was to displace? Surely the Emperor, as did Caracalla and Diocletian, must have issued pieces which could not be confounded with their predecessors.

It is suggested, therefore, that silver-washed radiate pieces were always intended to be the direct successors of the original antoninianus of Caracalla, whatever may have been the intrinsic value of the alloy in which they were struck.

Aurelian also issued reformed silver-washed coins of smaller module, showing a laureate portrait of himself, or a bust of his consort without a crescent. Mr. Sydenham considers that these pieces are quinary, but in size and appearance they are indistinguishable from the denarii of earlier reigns. He finds the average weight of them to be 39.5 grains, as against an average weight of 62 grains for the radiate pieces; roughly a proportion of $\frac{2}{3}$ to 1, which was that of true denarii to antoniniani. It is true that he alters this proportion somewhat in stating what he believes to be normal weights, but it seems fairer to rely on the actual averages, and, on examination of the coins of Gordian III, it appears that his denarii fall even a little more short of $\frac{2}{3}$ of the weight of his antoniniani than do the pieces in question.

The Emperor also dealt with the bronze coinage by issuing coins which Mr. Sydenham, no doubt rightly, considers as asses, in much greater numbers than any of his more recent predecessors—an operation which

also suggests restoration rather than reform, and this point is emphasized by the fact that he issued a few sesterces.

It may be doubted whether the theory of a new denomination would have suggested itself at all had it not been for certain mint-marks which numismatists have attempted to explain in many conflicting ways.

These are, on the radiate coins, **XX**, **XXI**, **XX·I**, **KA**, **KFA**, and others (which most authors have considered to be marks of value), and on the laureate pieces **VSV**. We may hope the theory that **XX** and **XXI** represent different values, and that one coin passed as worth twenty of, or a twentieth of some other coin, while the piece marked **XXI** differed by one unit from that marked **XX**, has been finally disposed of.* It is inconceivable that the State could have ordered, or the public accepted, such a minute difference of value in coins of equal size, weight, and appearance. The variations of the marks such as **XX·I** and **KFA** clinch this point. The mark **XX** appears again in the well-ordered series of Probus and, as under Aurelian, is always of the mint of Tarraco; so we should have to accept as a fact that one provincial mint was permitted to persist in issuing coins differing in value from all other mints of the Empire. We may safely agree that all these marks are but different methods of stating a proportion of 20 to 1.

Mr. Mattingly thinks the relation set out is that the radiate piece so marked was tariffed at 20 of what, in the reign of Aurelian, would only have been a monetary expression unrepresented by any coin: the denarius communis, reckoned in the Edict of Diocletian as 1/50,000th part of the pound of gold. It must be

objected that there is no historical or literary evidence of the existence of such an expression before the Edict, and that actual silver, or at least white metal, denarii of much greater value were in circulation when the coin was struck. In early days it was the practice to mark on a coin the number of coins of a lesser denomination which it was worth (as **X** for 10 asses), or its fractional relation to a larger one (as **S** for semis), and Mr. Sydenham shows us that the practice of marking coins so as to read "so many of this coin are equal in value to one of a larger denomination" was not uncommon in the later mints of the Empire. Therefore we need find no difficulty in reading **XXI** as "twenty to one larger coin"; but neither of these practices seems to justify us in reading **XXI** to mean "twenty of a smaller coin equal this one". That would, it is submitted, be a method both very obscure and quite inconsistent with Latin practice, and in making so important an announcement as that the coin so marked was to be taken as of a different value from that which the public had been in the habit of attaching to other coins of exactly similar appearance, the greatest clearness would surely have been employed.

Mr. Sydenham, on the other hand, favours the reading of the figures **XX** as "ten and ten", not as "twenty", and on this he founds an explanation, not only of these marks, but also of the more puzzling **VSV**.

The existence of the mark **KA**, which must, it is submitted, mean either 21 or $20 = 1$, and not two tens equal one, seems fatal to this theory, which perhaps would not have been formed but for the possibility that it might help to unravel the mystery of **VSV**.

It may here be pointed out that Mr. Sydenham's table of the issues of Aurelian might lead one to suppose that all radiate coins of the reform bear one form or other of the marks above discussed, and all the laureate ones the mark **VSV**. In fact the former do not appear on half of the reformed radiate series, their place being often taken by other numerals, letters, &c., while the latter is quite rare, and perhaps did not appear on so many as 5 per cent. of the laureate coins. We may not unfairly argue from this that the announcement made by the letters **VSV** was of less importance than that set forth as **XXI**, and that even the latter was by no means so important as would have been the announcement of the issue of a totally new denomination. That should have appeared on every coin of the series, if only to distinguish it from its predecessors of similar appearance.

May I suggest a possibility that Aurelian, being unable to issue a piece of the full size and value of the original antoninianus of Caracalla, took advantage of the opportunity to tariff the restored piece at a rather less and more convenient value, in relation to the aureus, than its predecessor, and that the mark may be read "20 of these (token) coins are to be current as one aureus".

Professor Oman has shown us that the gold coinage must have passed by weight, which would have obviated much of the practical inconvenience of such rearrangement, and, indeed, we see a similar course adopted in the relation of our own (token) shilling to the sovereign. Of course, such an alteration displaced the convenient relation of the denarius to gold, but, as the antoninianus then formed by far the larger part

of the currency, the change would really have been for the public convenience.

There remains the mark **VSV**, all the interpretations whereof have been based on the theory that the coins on which it is sometimes found are quinarii. If they are not, the ingenious efforts at explanation all fail. We have seen that the coin was designed so as to bear the greatest possible resemblance to a denarius. Quinarii were never a very important part of the Roman system, especially under the Empire, but a sufficient number were struck from time to time, and under certain emperors, to keep them in some small circulation. From Gallienus to Diocletian such pieces occur with some frequency. They are of much smaller module and weight than the laureate issues of Aurelian, and have quite a different appearance; and the fact that they were silver-washed, and always bear a laureated bust, seems to indicate that they were part of the "silver" issue, and had relation to the denarius rather than to the antoninianus. If they were not quinarii it is difficult to find them place or name. If they were quinarii then certainly the **VSV** coins were not.

All the attempts to read this mark as an announcement of value seem quite unconvincing. It was only used on a very few pieces in one reign, and though some similar coins may be found in later reigns, they never bear it. There is no similar mark in the whole Roman series except the **RSR** of Carausius, which no one has attempted to read as a statement of value, and, indeed, no parallel expression of a value can be found, it is believed, in any Latin inscription or document. If, as is suggested, the larger coin was to be known as a denarius, then the simple and time-honoured mark

Q might have proclaimed the smaller one as a quinarius, especially if it had been inscribed somewhat larger than the small mint letter Q which had been used before A.D. 271, though probably only on one issue, from one mint. As in the case of the larger coin, one would expect to find the announcement that this piece was to pass at a different value from other coins which exactly resembled it placed on every coin of the series, in the most clear and easily comprehensible form that could be adopted.

Sir Arthur Evans's tentative suggestion that the mark may mean **VOTA SOLVTA QVINQVENNALIA** seems much more logical and probable. The inscription in the exergue of a distinct portion of a legend is not uncommon on Roman coins.

It seems impossible to read the mark as "half of 20" or "half of 21", or to explain why two V's should have been used to state what could have been conveyed by one X. Mr. Sydenham's view that two X's were used to indicate, not 20, but two separate figures of 10, is at best strained, and, as we have seen, is inconsistent with the Greek form of the mark. The moneyer might, perhaps, have followed the precedent of the silver sesterce and written **VVS**.

PERCY H. WEBB.

XV.

A MEDAL OF LORENZ STAIBER.



THE bronze medal here illustrated was acquired recently at a London auction,¹ where it was described as the medal of an English knight. Its description is as follows:—

Obv.—Bust r., beardless, wearing netted cap and plate-armour. *Inscr.* OMNIVM RERVVM DEVS.
AVTOR EST M.D. XXVIII.

Rev.—Achievement (shield, casque, crest, collar, and mantling) of Staiber. *Inscr.* LAVRENT.
STAIBERO EQV AVR REG BRITAN.
ORAT AET S ANN XLII.

Bronze, cast. 39 mm.

Collection of Mr. Maurice Rosenheim.

From other sources, to be mentioned below, it appears that the shield should be blazoned thus: Per bend

¹ Sotheby's Catalogue, June 5, 1919, lot 143. For assistance in various ways connected with this paper our thanks are due to Prof. A. F. Pollard, Mr. Mill Stephenson, Mr. C. G. Crump, and Mr. Campbell Dodgson.

sinister sa. and or a hound salient counterchanged (Staiber) impaling or, two one-legged fighting-cocks addorsed sa., combed and wattled gu. (Rummel of Nuremberg); and on a chief az. a lion passant guardant or within a bordure gobony arg. and gu. (Staiber, augmentation of 1520). Crest: a lion full face sitting in a coronet between two horns, dexter paw elevated, gobony collar round throat. The shield on the medal shows an inescutcheon; on this the charge is indecipherable, and there is no other evidence, so far as we know, of what it should be. The collar surrounding the shield is an English king's livery collar of SS and knots, with portcullises as last links (perhaps not quite understood by the medallist), and a pendent rose.

This piece appears never to have been described before. Two other medals of the same man have however been published.

1. *Obv.*—Bust l., with large broad-brimmed hat. Inscr.
LAVRENCIVS STAYBER XXXIII IAR
ALT MDXIX

Without reverse.

Æ ca. 45.5 mm.

Chr. Andr. im Hof, *Sammlung eines Nürnbergischen Münz-Cabinets* (Nürnberg, 1782), p. 927, No. 66.
Catal. Rolas du Roscy (Leipzig, 1863), No. 3420.
G. Habich, *Studien zur deutschen Medaille*, in *Jahrbuch der k. preuss. Kunstsammlungen*, xxvii (Berlin, 1906), Taf. D, 12, and *Deutsche Medailleure* (Halle a. S., 1916), p. 23.

This medal is by Hans Schwarz, whose drawing for it is also illustrated by Habich, *Jahrbuch*, *ann. cit.*, p. 36.

2. *Obv.*—Bust l., bearded, wearing hair-net and chain. On truncation of r. arm, .L. in relief. Inscription above, **LAVREN : STAYBERVS. EQ : AVR.** and below, **AC. ANGL. ET FRANC : REGIS. ORATOR.** All in wreath.

Rev.—Bust r. of Staiber's wife, wearing hair-net, cap, and chain. Inscription: **ICHANYM. GOT. ZV. HILFF. M.D. XXXV** (*i.e.* ich nehme Gott zu Hilfe, 1535). All in wreath.

"Goldsmith's work", between 40.5 and 36 mm. Im Hof, *loc. cit.*, No. 67. Habich, *Deutsche Medailleure*, pp. 99, 100.

The **L** on the truncation of the arm has usually been supposed to be an artist's signature, but Habich points out that signatures in relief in such a position are unusual at the time and that Staiber was fifty years old in 1535; **L** therefore indicates his age and the medal is probably by Mattes Gebel.

Lorenz Staiber of Erllstegen was a native of Nuremberg. The medals show that he was 33 years old in 1519, and 42 in 1528, so that he must have been born in 1485 or 1486. The medal by Hans Schwarz dated in 1519 shows that he was then in Nuremberg. In 1520 he visited England, when he was knighted² by Henry VIII and received the augmentation—the chief with the lion—which is seen in his coat.³

² In June, according to W. A. Shaw, *The Knights of England* (1906), ii, p. 43.

³ The augmentation was granted by letters patent at Windsor, Oct. 8, 1520. A copy of the grant is in the Bodleian Library, Ashmole MS. 858, fol. 43, and from this in the College of Arms MS. (*Oxford Grants*, i. 281). The arms and crest are thus given:—"de nigro et auro partitis per fissuram ex transverso cum uno cane odorisequo in banda saliente coloribus transmutatis et in capite azurio unum leonem aureum peditantem, purpura armatum, cum fimbria sive bordura gobonata de argento et rubeo."

"Et pro crista sua super galeam unum dimidium leonem situatum in corona aurea habentem collare gobonatum de argento et rubeo inter duo cornua nigra."

In a short pedigree following the grant his wife's name is given as Magdalen, daughter of John Ramel, of Nuremberg.

Thus augmented, Staiber's arms are represented in a woodcut by Albrecht Dürer, known in various versions, of which only one, and that existing in a single example in the collection of Frau Prof. Blasius, is from the hand of the master himself.¹ There is a record that Dürer made drawings of the arms at Cologne (on wood) in November, 1520, and at Antwerp in 1521. The earlier drawing may well have been for the block which is preserved in the single example. The arms are correctly represented with the chief; the livery collar, however, is not placed round the shield, but is drawn separately in the upper left hand corner. The lion on the chief is crowned, but that of the crest is bareheaded. The helmet has only four bars to the visor instead of six and is turned three-quarters to the dexter. This block has no inscriptions.

Subsequently, another block was cut, on which the collar was placed in position round the shield, and a scroll was placed above the whole, bearing the inscription: "Römischer kayserlicher und hispanischer kön. Mayestät, etc. Dienner Laurentz Staiber." Below was placed a motto, equivalent in sense to that which appears on the new medal, viz. "Omnia ex Deo veniunt. Alle ding kummen ausz Gott." The rendering of the coat of arms was altered—not for the better—the augmentation occupying a full half of the shield, so that it appears to be divided per fess. The lion is not

¹ For these woodcuts see Bartsch, 167, 168; J. Heller, *Das Leben u. die Werke des Albr. Dürer*, ii (Leipzig, 1831), pp. 738 f., No. 168; Soc. of Antiquaries' Heraldic Exhibition, 1894, *Illustr. Catal.*, p. 88, No. 285, Pl. xlix; C. Dodgson, Brit. Mus. *Catal. of Early German and Flemish Woodcuts*, i, p. 336; the same in *Mitteil. der Gesellsch. für vereinf. Künste* (Beil. der "Graph. Künste"), 1903, pp. 58 ff.; the same in Dürer Society's *Twelfth Publication*, Plates xxi, xxii.

crowned, and the helmet (with six bars) is turned to the front. The shield is changed to the English shape which we see on the new medal.

Yet later this block was altered, by cutting away the whole of the inscription scroll, except the ends, and inserting a piece above the lion so as to place a crown containing two flags on his head.

Since on the medal of 1528 the lion of the crest does not wear the crown with flags, we may assume that this detail, and consequently the alteration of the block just mentioned, are of later date.

Another heraldic record of Staiber is in the roll belonging to Mr. Everard Green, Somerset Herald. This roll, or at any rate the part containing this coat, seems to have been painted about 1530. The arms of "Steyber" show the augmentation of 1520, and he does not impale his wife's arms.⁵

What services Staiber had rendered to earn the honour of knighthood at the hands of Henry VIII we do not know. When we next hear of him in 1523 he is in Nuremberg,⁶ whence he writes on December 4 to the king expressing thanks for the honour of knighthood conferred on him: "Vt, quem Regijs manibus in tue M^{ti} arce Winndesore in auratam societatem accersiuerit, adscripserit, et equitem Auratum desi-

⁵ The roll has been described to the Society of Antiquaries by Messrs. Ralph Griffin and Mill Stephenson (*Proc. Soc. Ant.*, June 26, 1919).

⁶ J. S. Brewer, *Letters and Papers, foreign and domestic, of the reign of Henry VIII*, vol. iii, part ii, No. 3602. Quoted in full by Dodgson, *Mitt.*, *loc. cit.* Some two score references to Staiber will be found in this and succeeding volumes of the *Letters and Papers* down to vol. xvi; see the indices under "Starber" and "Stauber".

gnauerit." He offered to serve the king with a troop of a hundred horse or more.

Later,⁷ from 1528 to his death in 1539, we find him the accredited agent of the English Government. On Feb. 8, 1528, he wrote from Antwerp that he was going into High Germany and would be diligent to execute Wolsey's commands. Six days later Hacket sent to Wolsey a letter from "Sir Lawrence Stawber of Noremberghe who lately came from England". On Mar. 7 he wrote to Wolsey from Nuremberg, reporting on affairs in Germany, and mentioning one of his commissions, which was to inquire about metals. On Aug. 18 and Oct. 10 he wrote again from Nuremberg on the political situation and also about metals, giving the analysis of certain kinds, recommending an expert (John Bauer) and sending specimens. He returned some time later to London, for on Feb. 6, 1530, Chapuys wrote from London to the Emperor Charles V saying that Laurence *Scavre*, the Nuremberg agent, was returning with the servants of the Duke of Saxony. He was in receipt at this time of an annual salary of 150 crowns at 4s. 6d., or £33 15s., which was increased towards the end of his life to £35. His head-quarters at first were at Nuremberg, though he is occasionally reported at other places, as Augsburg and Neuenmarkt; in Sept. 1533, for instance, he left Nuremberg on

⁷ Prof. A. F. Pollard suggests that he may possibly be the man mentioned in 1525 by Melanchthon, in a letter to Camerarius dated April 12: 'Haec scripseram, cum venit Stiberus et vestras literas cui roū a' β' reddidit.' See H. Barge, *Andreas Bodenstein von Karlstadt* (Leipzig, 1905), ii, p. 316 note. The spelling *Stiberus*, however, seems to indicate a different name, the same as that of Daniel Stibarus, who is represented on a Nuremberg medal of about 1530. Only in English pronunciation could Stiber sound like the German Staiber.

account of the plague. It was in this month that Vaughan, Cromwell's agent at Cologne, reported that the king had been greatly deceived by Staiber, who had certified many lies in order to obtain his stipend. The accusation, however, seems to have produced no effect. On Oct. 10, 1535, writing from Nuremberg, he calls himself 'Eques Auratus ac Georgii Marchionis Brandenburgensis Consiliarius', and he uses the same title on Feb. 17, 1536, in writing to Bishop Foxe. His presence at Nuremberg in 1535 is also attested by the medal of that date, which is of Nuremberg work. The letter to Foxe, it is interesting to note, enclosed a silver medal bearing the effigy of the writer, doubtless a specimen of the new piece. On Nov. 22, 1536, we find him resident as Castellan at Camerstain near Schwabach in Franconia. The last entry is in a list of wages at Lady Day, 1540, in which his name appears with the note: *nihil, quia mortuus*.

He was buried at Heilsbronn, between Nuremberg and Anspach. There on the wall of the church is a brass tablet⁸ with the inscription "Des erbarn und vesten Lorenz Staibers Wappen und Begräbnuß". The tablet bears Staiber's arms, with the livery-collar; the lion of the crest does not seem to wear the crown with the two flags which appears in the pseudo-Dürer woodcuts. Below this tablet is attached a small shield, bearing two black cocks addorsed on a gold field.

⁸ J. L. Hocker, *Heilsbronnischer Antiquitäten-Schatz* (1731), p. 51. He describes the bordure as red and black; Dodgson plausibly suggests that the silver may have become oxidized by time. Hocker himself notices that according to the *Wappenbuch*, part II, p. 163, the bordure should be red and silver.

The shield on the medal of 1528, where Staiber's own coat impales a coat with two rather nondescript crested birds addorsed, shows that he was married; and on the medal of 1535 he placed the portrait of his wife. The lady, as we have seen above (p. 246, note 3), was Magdalena, daughter of Johann Rummel of Nuremberg.⁹

A word may be added on the authorship of the new medal. Its origin in Nuremberg is patent from its style, even if we did not know that Staiber was in that city in the year in which the medal was cast. It shows the use of a reversed G instead of D which Habich¹⁰ has noted as occurring frequently in Nuremberg medals of 1526 and 1527 (although, if we understand him rightly, he has not noticed an instance in the year 1528). Whether it is by Mathes Gebel or not we may leave to the decision of those who can distinguish his style amid the extraordinary uniformity which the German gild-system produced in the medallie as in other crafts.

Finally, it may be noted that much confusion exists in the written records with regard to Staiber's name. The medals and the woodcut by Dürer make it clear that his name was Staiber or Stayber. If we trust to the transcripts by Brewer and Gairdner, we are bound to assume that the name was written sometimes Starber, sometimes Stauber, and that too by Staiber himself. As to the spelling by other persons, the variations recorded in the *Letters and Papers* are extraordinary;

⁹ For the arms, see Sibmacher, *Wappenbuch* (1699), i, 206; J. M. Trechsel, *Nürnbergischer Kirchhof* (1736), p. 225; Rietstap under Rummel von Lichtenau und Lonerstadt.

¹⁰ *Deutsche Medailleurs*, p. 73.

e. g. Stayber, Staber, Starber, Stauber, Stawber, Staver, Staker, Scavre, Starborough, Scarborowe, Skarboro, Scarvenigh, Staborons, Stabernes. How many of these are mere misreadings, how many due to original miswriting, we do not know. "Staber" is obviously an Englishman's pronunciation of the correct form Stayber or Staiber. Staiber's own signature is certainly curious; the fourth letter might easily be misread as a *v* or an *r*, but it has a diacritical mark over it, which, as Mr. Crump observes, is just like his diacritical mark over the *u*; this shows that it is a vowel. Mr. Crump is clear that it is meant for *i*. It is true that it is different from the writer's ordinary *i*, but in signatures special forms are often affected.

MAURICE ROSENHEIM.

G. F. HILL.

MISCELLANEA.

NOTE ON PENNIES OF ALFRED THE GREAT WITH THE OBTVERSE LEGEND DIVIDED INTO THREE OR FOUR PARTS.

In the *Numismatic Chronicle*, 4th ser., vol. ii, p. 202, our late President, Sir John Evans, discussed the pennies of Alfred with the obverse legend divided into three or four parts with blank intervening spaces, suggesting as a reason that an imaginary Pall and Cross were probably intended to be respectively represented in the blank spaces. Be this as it may, the following passage in the "Annals" has prompted me to offer for what it is worth a further more practical suggestion.

Ruding, after stating that the peculiar circumstances of Alfred's reign precluded the possibility of adopting any measures for the improvement of the coins, and that his laws are entirely silent concerning them, goes on to say that they "afford no other information respecting the currency of his time than that it was estimated by pounds, shillings, and pence, such being the coins, or money of account, by which the fines are regulated. *The third part of a penny* also occurs in them, which could not readily be paid unless *there were money of that value*; none, however, has yet been discovered." (*Annals*, vol. i, p. 125.)

It has thus occurred to me that, as it was a recognized custom to cut the Saxon pennies into halves and quarters to provide small change, these three spaces on certain of the coins may also have been intended to facilitate the cutting into *thirds* for the same purpose; so that on the framing of the laws, circa A. D. 890, the fines were doubtless regulated to suit the existing currency.

According to Liebermann (*Gesetze der Angelsachsen*, vol. i, pp. 80, 86; Alfred, 47, 71) and others, the text of the laws in question is as follows:

47. "If a man strike out another's eye, let him pay *lx.* shillings, and *vi.* shillings and *vi.* pennies, and a third part of a penny, as 'bôt' [compensation]. If it remain in the head, and he cannot see aught therewith, let one third part of the 'bôt' be retained."

71. "If a man strike out another's eye, or his hand, or his foot off, there goeth like 'bōt' to all; vi. pennies and vi. shillings, and ix. shillings, and the third part of a penny."

The type under discussion is said by Hawkins (No. 10, 3rd edit., pp. 121, 125) to belong to the third division of Alfred's coinage, being one of a group said to have formed the principal currency of Wessex at the time of his death, and of a type unknown before his reign; but it is pointed out that the issue must have begun before 890, the type having been copied by Ethelstan of East Anglia, who died in that year. This perhaps lends colour to the suggestion that the above-named fines, imposed *circa* 890, could be paid by the aid of a recently permitted form of currency. As to whether any of these cut thirds are known, perhaps this note may be the means of bringing such to light. We may surmise that their use either as small change or for fines would probably be infrequent, and, even if extant, they would doubtless be of considerable rarity.

W. E. MARSIL.

AN ALLEGED ISSUE OF COINS AT ANAGNIA BY MARK ANTONY.

THE familiar names of Mark Antony and Cleopatra are brought into connexion with that of the Hernican town of Anagnia in a quaint episode in the history of numismatic studies in antiquity, the true character of which I believe has not yet been fully appreciated. In the commentary of Servius on *Aeneid* vii. 684, occurs the following explanation of the epithet *dices* as applied to Anagnia by Virgil: *aut fertilis, aut adludit ad historiam. Nam Antonius Augusti sorore contempta postquam Cleopatram duxit uxorem, monetam eius nomine in Anagnia civitate iussit feriri.*

As is well known, the material preserved to us in the Servian commentary and the other scholia on Virgil varies greatly in character and in documentary value. In the present instance, the late Latinity of the phrase *in Anagnia civitate* suffices to warn us that the note assumed the form in which we have it at some time nearer the age of Servius (saec. iv) than that of Virgil. With regard to the content of

the note, it is quite impossible to give it credence: the only coins which in some measure fulfil the conditions are the denarii. Babelon, *Monn. Rép. Rom.* i, p. 195, Antonia 95, and Grueber, *B. M. Cat. Rom. Rep.* ii, p. 525, Nos. 179-82, and these were struck between 34 and 31 n.c., possibly at Alexandria or Ephesus, more probably at Athens.

Either some corruption has crept into the text of Servius in the course of its transmission, or else we have to do with an erroneous supposition of some ancient scholar. Babelon and others have proposed to read *Alexandria* for *Anagnia*; but this is quite without palaeographical justification. Laffranchi (*Riv. Ital. di Numism.*, xxx, 1917, p. 248) similarly regards *Anagnia* as a manuscript corruption of *Antiochia*. F. Lenormant, *La monnaie dans l'antiquité*, ii, p. 332, note 4, preferred to assume that a head of Octavia had been mistaken for one of Cleopatra: a supposition which in itself is possible, but leaves unexplained the reference to Anagnia.

I believe that the origin of the story is to be sought in a different way, and by inspection of the coins above mentioned. These bear on the obverse the head of Antony, and on the reverse the bust of Cleopatra, both identified by inscriptions. The legend of the obverse reads **ANTONI· ARMENIA· DEVICTA**. A glance at Plate cxv, No. 15 of the *B. M. Cat.*, will show that in a worn specimen it would have been quite possible to mistake the **ARMENIA** for **ANAGNIA**; and this I take to have been the origin of the story. We may smile if we choose at the mistaken reading of the nameless antiquarian—perhaps some worthy citizen of Anagnia itself who had found such a coin in the territory of his native town—as well as at the credulity of Servius; but the incident would not be altogether without parallels in the more recent history of numismatic science.

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ERRATUM.

Mr E. T. Newell points out a confusion in the illustration of a tetradrachm of Alexander the Great, in *Num. Chron.*, Vol. xix, Pl. i, No. 14. The obverse and reverse there illustrated belong to two different coins; the reverse which should be attached to the obverse is that described in Müller 1354 (one of the grazing horse class attributed to Babylon). Mr. Newell's knowledge of the varieties of "Alexanders" showed him at once that if the collocation in the plate were correct, the whole basis of his reconstruction of the coinage of the Eastern Mints would vanish. I much regret to have given him a shock by an accidental confusion of casts.

G. F. H.

THE REVUE BELGE DE NUMISMATIQUE.

The Editors are glad to be able to call the attention of readers of the *Numismatic Chronicle* to the reappearance of the *Revue Belge de Numismatique*, the organ of the Belgian Société Royale de Numismatique. The Council of that Society ask for support for the publication; subscriptions from this country are fixed at 16s. per annum, and should be sent to M. A. de Roissart, Trésorier de la Société Royale de Numismatique, 12 avenue de la Couronne, Ixelles, Belgium.

XVI.



THE MARTLET AND ROSE HALF-GROATS OF HENRY VII.

THE difficulty of arriving at a satisfactory classification of the profile half-groats bearing Henry VII's name has compelled some further reconsideration of the subject, chiefly in relation to the output of the York mint. It has hitherto been undisputed that all these half-groats, except those bearing Keys below the shield, emanated from the London mint in spite of the fact that two of the marks found on them, viz. the Martlet and the Rose, are not found on the London groats, whereas the other two marks, the Lis and the Pheon, are found on both groats and half-groats. Now the Martlet characterized the York half-groats with the full face and arched crown which were replaced by the profile portrait in 1503, and it is only on these York half-groats and on no other coins of the second issue that this mark is to be found. These full-faced half-groats sometimes have the tressure round the head and sometimes this is omitted. Keys occur at the sides of the head in the large majority of cases, but on a very few coins they are absent. All these half-groats have the mint name as the inner legend on the reverse. When these half-groats were replaced by the profile coins the old mark, the Martlet, was retained, and the Keys were relegated to the

reverse and the mint name removed from the coins. The Keys show us that the coins were struck at York—so that there can be no doubt about the Key-marked pieces, whether they have a Martlet or a Rose. The whole difficulty arises when similar coins without Keys have to be considered.

The Rose is, however, also found on a late second issue angel, and on a third issue¹ half-angel, as mark of a reverse the obverse of which has the Cross Crosslet, and on the reverse of a late second issue groat which bears the Greyhound's Head on the obverse.

Muling of the Martlet and Rose marks occurs on half-groats with and without Keys and on coins of no other denominations. The earliest Martlet half-groats, both with and without the Keys, are prior to the introduction of the profile type, that is to say, earlier than November 1503; the earliest with the Rose are of the profile type, so too are those that combine the two marks.

On some of the half-groats with these marks the terminals of the limbs of the reverse cross are shaped as on the earliest half-groats of Henry VIII, thus:—; the ordinary form of the terminals on half-groats of Henry VII is ; it would therefore appear that the Martlet and the Rose half-groats continued to the end of the reign.

The only other third issue (profile) half-groats bear the Lis or the Pheon mark, and thus correspond with the Tower groats.

It seems therefore possible that, as the Martlet

¹ See *Num. Chron.*, 1918, p. 224. The Rose half-angel dies have Rosette stops.

half-groats of the full-faced, or second, issue which omit the Keys were, as their reverse inscription informs us, struck at the York mint, the Martlet and the Rose half-groats of the profile type should, whether with or without the Keys, be attributed to York.

During the reign of Henry VII there were three archbishops of York, namely, Rotherham from the beginning of the reign to May 1500, Savage from April 1501 to September 1507, and Bainbridge from December 1508. There were therefore two voidances of the See during which the temporalities were in the king's hands, from May 1500 to April 1501, and from September 1507 to December 1508.

No commission is known appointing an overseer of the mint in the earlier of these two *sede vacante* periods, but in the Calendar of Patent Rolls there is the following entry under the year 23 of Henry VII:—

"20 Sept. (1507) Commission to Thomas Pygott to act as keeper and overseer of the mint at York during the voidance of the see of York, such office having been lately held by commission from the archbishop, deceased, with injunction to coin only 'pens of two pens' and 'half pens' according to the stamp and form used in the time of the archbishop."

In this there are three points of particular interest:—

(a) The definite statement that while Savage was archbishop the mint of York was in active operation, a stamp and form having been "used in the time of the archbishop". Mr. Symonds (*Brit. Num. Journ.*, vol. x, p. 134) says, "Letters of Privy seal upon a K. R. Memoranda Roll of Hilary term 16 Henry VII, confirming Alexandre de Bruchsell in his office as graver, state that the king had restrained the mints of Canterbury, York, and Durham for a certain season,

whereby the work of the Tower graver had been proportionately increased. Therefore we must assume that the mints in the three cathedral cities were closed for an unknown period before the year 1500, and possibly until a later date." If the mint of York was closed, it was reopened before the death of Savage in 1507.

(b) The peculiar feature of the omission of the penny denomination in the coinage of York; only half-groats and halfpence were ordered to be struck during the voidance of the See and, apparently, only these two denominations were struck in the archbishopric of Savage. May the conclusion be drawn that the restraint noted by Mr. Symonds was limited to the pence issues? Such a restraint would, of course, close the mint of Durham and limit the mints of York and Canterbury to the issue of half-groats and halfpence.

(c) The evidence of an order to issue at the mint of York a coinage under the king's authority during the voidance of the See.

We may therefore conclude, almost with certainty, that half-groats and halfpence were struck by the king at York in the period September 1507 to December 1508, and by analogy we may perhaps assume that they were similarly struck in the preceding *sede vacante* period, May 1500 to April 1501. Was the king's coinage differentiated from the archbishop's? If so, by what means?

Unfortunately, the only coinage by which we can hope to be guided in answering these questions is that of Durham in the reigns of the first three Edwards. This coinage has been most carefully worked out and the king's tenure of the temporalities used effectively

in the arrangement of the series by Mr. Fox and Mr. Shirley-Fox (*Brit. Num. Journ.*, *passim*), but at Durham the coins of the bishops bore their personal badges, and the king's coins were, as we should expect, differentiated by the omission of the bishops' badges. During the last issue of Henry VII, owing to the use of the legend *Posui Deum Adiutorem Meum* alone on the reverse to the exclusion of the name of the mint, the only feature by which we can distinguish the half-groats of York from those of the Tower mint is the mark of the two Keys placed below the shield on the reverse. The Keys of St. Peter are the emblem of the See, and not a personal badge like the cross moline of Bek and the lion of Beaumont. Moreover, the omission of the Keys would, so far as we can tell, cause confusion between the York and the London issues unless the Martlet and Rose were used as mint-marks at York only. On the other hand, is it to be supposed that the king would imprint upon the coins struck by him in virtue of his tenure of the temporalities of the See the peculiar emblem of the archbishops of St. Peter?

If we assume that the Keys were omitted on coins struck by the king during the voidance of the See, we must transfer to York all the half-groats bearing the Martlet and the Rose marks; and it would seem necessary, by analogy, to assume the Martlet half-groats of the second issue which omit the Keys to be the corresponding coins of the *sede vacante* period 1500-1. This is not an easy proposition to accept, for we find that the Martlet half-groats of the second issue correspond closely in detail of lettering and style with the London groat series; with the Keys the series follows accurately

the series of the Greyhound and Cross Crosslet issues at London, thus:—

Without tressure.	Severe lettering.	
With tressure.	" "	
" "	Gothic lettering.	
" "	" "	II

But all Martlet half-groats of the second issue without Keys have Gothic lettering and II, a style which apparently belongs to a later period than 1500-1. On London groats this style is found only with the Cross Crosslet, which seems to have been adopted as mint-mark only very shortly before the new issue of November, 1503.

Again, in the profile issue, comparison with the Tower issues seems to require the York half-groats to be placed in the following series:—

Martlet.	Earlier cross terminals.	II
"	" "	A
Martlet-Rose mules.	" "	"
Rose.	" "	"
"	Later cross terminals.	"
Martlet-Rose mules.	" "	"
Martlet.	" "	"

The Martlet corresponds with the Lis at London; it soon gives place to the Rose and only makes its reappearance at the very end of the reign; the Martlet coins with the later cross terminals are very scarce. The keyless half-groats of this issue are apparently too long a series to represent the coinage of the period 1507-8.

Lest it be considered that too much stress is laid on a matter of small importance it should be noted that the cross terminals of the shape used on the half-groats

of Henry VIII are but rarely found on half-groats of Henry VII; they are found only with the Martlet and Rose marks in this reign; the following numbers of the coins in the British Museum and in Mr. Lawrence's collection may be some guide to their comparative frequency on these half-groats:—

	EARLY FORM.	LATE FORM.
With Keys		
Martlet	22	1
Rose	0	2
Rose-Martlet . .	3	1
Without Keys		
Martlet	10	0
Rose	2	10
Martlet-Rose . .	3	1

The attribution of the keyless half-groats to the Tower mint does not seem to involve less difficulty. The Pheon, which seems to be the earliest mark of Henry VIII, is certainly the latest of Henry VII; the Rose would therefore be running concurrently with the Pheon, if not also with the Martlet.

We have already mentioned other Rose coins—the angel, half-angel, and groat of the Tower mint; which would appear to indicate a place for, at least, the Rose half-groats that have no Keys. But here again there are difficulties. The Rose leaps suddenly into view just before the introduction of the profile issue only to disappear again as suddenly immediately after its introduction. On the groat it is in the second coinage, on the half-angel it is muled with the Cross Crosslet; it shows nowhere any connexion with the Lis and Pheon issues which form the main body of the third coinage; whereas the Rose half-groats are decidedly late coins, and, if placed to the Tower, must have the

whole bulk of the Lis and Pheon issues interposed between them and their fellows.

The solution of this problem must, for the present, depend for each individual upon the answer he gives to the question whether the king may or may not be expected to have continued the use of the Keys on the York coinage during his tenure of the temporalities. We are of opinion that all the Martlet and Rose half-groats, whether with or without Keys, must have been struck at York, but that the identification of those that have no Keys with the *sede vacante* periods of 1500-1 and 1507-8 presents insuperable difficulties.

G. C. BROOKE.

L. A. LAWRENCE.

XVII.

HALFPENCE AND FARTHING OF HENRY VIII.

MR. G. C. BROOKE has just been good enough to call my attention to a little bit of information which he found in Ruding, under the year 1523,¹ and which refers to enactments of Parliament held in that year. We there read: "And whereas the farthings and halfpennies were struck with one coin so that the common people many times took the farthings for halfpennies, it was ordained that the farthings to be made from that time should have on one side a portcullis and on the other a rose with a cross". Ruding also tells us that the same Parliament ordered that of every 100 pounds' worth of silver, 50 pounds' worth were to be made into groats, 20 into half-groats, 10 marks' worth into halfpence, and 5 marks' worth into farthings. The amount to be coined into pence is omitted; but the remainder (£20) left over from the hundred pounds would presumably be the amount used for making pennies. The number of halfpence and farthings to be struck was clearly very small. The most important fact in the quotation is that the people were frequently

¹ Vol. i, p. 302.

unable to distinguish their farthings from halfpence in this, the first, coinage of Henry VIII, as they were made from the same dies.

Now looking to the fact that we do not know of any farthings at all after the cessation of the heavy coinage of Edward IV in 1464 or 5 until these portcullis rose farthings of Henry VIII, have we not here an explanation of their seeming absence? Surely these, like the corresponding coins of Henry VIII, were "struck from the same coin". It will perhaps be remembered that when we were discussing the coinage of Henry VII, just a year ago, this point of halfpence and farthings was brought up. If my memory serves me, I objected to Colonel Morrieson's farthing because it was practically indistinguishable from a halfpenny except by weight. I also stated in my paper,² "The weights of the halfpennies are very untrustworthy and vary from 7 grains to 3.5 grains irrespective of condition". Ruding's information now helps us to a better decision, in that we may say, with some degree of certainty, that those coins which are in good condition and weigh about 6 grains or more are halfpence, and that the coins also in good condition and weighing approximately half the weight are farthings. The weight and condition taken together would seem to be a very simple way of distinguishing the farthings from the halfpence, but the matter is further complicated by the definition of good condition. It is easy to define a fine coin as a well-struck, round, unworn specimen. Unfortunately in Henry VII's time such pieces are practically unknown. But what of the

² *Num. Chron.*, 1918, p. 208.

bulk of these small pieces? Mostly, we should say, they are clipped and worn, and frequently they are holed. But pieces even in this seemingly bad condition are frequently a grain or so over the full weight. What the original weight of one of these pieces must have been can only be surmised, but if a halfpenny apparently clipped and worn and certainly with a hole in it now weighs 6.8 grains, and another without a hole 8 grains, how are we to distinguish a farthing which might also be over weight, say of 4 grains, from a halfpenny struck of normal weight and really worn? To my mind the thing is impossible, and I think the twentieth-century people are in the same predicament as those of the sixteenth century in their inability to distinguish with certainty the halfpence from their farthings. In view of this note I have recently weighed all the small coins in my collection from Edward IV to Henry VIII. I have thus found one coin of Edward IV and one of Henry VII which may be farthings. Mr. Spink gave me the opportunity of weighing his coins of the same period; I could not identify a single farthing. The museum coins of these periods give the same result. All of them are too heavy to be identified as farthings.

It looks, therefore, as if the number of farthings ordered to be coined in these earlier reigns was also very small, although we have no documentary evidence on this point.

It is perhaps unfortunate that we should have to leave the subject in this position; but at any rate we must revise our ideas as to what are clipped coins and worn ones, especially in regard to those which are over weight. The apparent clipping was probably done in

the mint. As to the loss of weight by wear, I am inclined to think that it is very much less than most people think—anyhow referring to our ancient coins; the testing of apparently worn coins with a balance frequently shows this to be the case.

L. A. LAWRENCE.

XVIII.

THE MINT OF CROSRAGUEL ABBEY.¹

THE ruins of the Abbey of Crosraguel—the name should be pronounced as if it were spelt ‘Cross-regal’—lie in a hollow about two miles south of the little Ayrshire town of Maybole. The monastic establishment to whose former existence they testify was never a large one. Yet it played a not inconspicuous part in the religious and social economy of south-western Scotland during the Middle Ages. Although its chartulary, which is known to have been extant as recently as 1729, is now irretrievably lost, a considerable body of other documents has been preserved, chiefly in the muniment-room of the Marquis of Ailsa. In 1886 these were published in two stately quartos by the Ayrshire and Galloway Archaeological Association,² under the editorship of Mr. F. C. Hunter Blair, who contributed a luminous introduction, tracing the fortunes of the Abbey from its first beginnings until its final annexation to the Crown. A few salient points in the narrative may be noted; they will help to throw light on what follows.

¹ The following paper was originally read before the Society of Antiquaries of Scotland, by the kind permission of whose Council it is reprinted here, the Editors being satisfied that it is likely to interest a wide circle to whom the Scottish Society's *Proceedings* are not ordinarily accessible.

² *Charters of the Abbey of Crosraguel*. Appended is a series of plans and sketches of the buildings, with notes, by Mr. James A. Morris, A.R.S.A.

An offshoot of the Cluniac Abbey of Paisley, Crosraguel was founded in 1244, through the munificence of Duncan, Earl of Carrick, the great-grandfather of King Robert the Bruce. Duncan's royal descendants nobly maintained the tradition of patronage which they had inherited. Thus, a Crown Charter of 1324—one of three for which Robert I was responsible—erected all the Abbey lands into a free barony, implying (in Mr. Hunter Blair's words) "not only the highest and most privileged tenure of land, but a vast jurisdiction over the inhabitants".³ Nor did the transfer of the throne to the House of Stewart bring with it any slackening in the stream of generosity. In 1404 Robert III signed a document which is rightly regarded as the culmination of the long sequence of benefactions. This was a charter "granting and confirming to the abbot and convent of Crosraguel, and the monks there serving God, in perpetuity, all their lands. . . . To be holden, had, and possessed, all and sundry the aforementioned lands, by the said abbot and convent for ever, in free regality, in fee and heritage, and in pure and perpetual alms, with gallows and pit, sok, sak, tholl, theme, infangthief, outfangthief, and with the four points pertaining to the crown."⁴ The last few words are specially noteworthy. In contemporary grants of regality the *quattuor puncta ad coronam spectantia* were not, as a rule, included. What the giving of them involved was jurisdiction in crimes of murder, fire-raising, rape, and robbery. Mr. Hunter Blair goes so far as to claim that their

³ *Charters*, i, p. xxviii.

⁴ *Ibid.*, pp. 37-40. For an explanation of the technical terms see *ibid.*, p. xxviii.

mention here means that "the Abbot of Crosraguel was created absolute sovereign over his whole territory".⁵ It may be doubted whether the majority of charter-scholars would endorse so glowing a comment. All, however, would agree that the treatment accorded to the Abbey was a mark of very high favour indeed.

Whatever the precise nature of the Abbot's sway, the territory over which it extended comprised the major portion of Carrick—that is, of Ayrshire south of the river Doon. The eight parishes concerned were prosperous and, as a whole, well populated, their natural resources providing the material for a variety of mediaeval industries. References in the charters show that among the tenantry and dependants were farmers, cottars, coal-miners, fishermen, and foresters. The passing of commodities from hand to hand would, no doubt, be to some extent facilitated by a survival of the primitive system of barter. But the community of which Crosraguel was the centre had left behind it the stage when payment in kind could suffice for the needs of everyday intercourse. The free circulation of a conventional medium of exchange was essential, and South Ayrshire must accordingly have shared to the full in the suffering and inconvenience which Scotland had to endure, in the latter part of the fifteenth century, as an outcome of the deplorable condition into which the coinage had been allowed to fall.

Although the details are still obscure, the broad facts of the depreciation are familiar enough to historians. As early as the reign of Robert III pennies and half-pennies of billon, or base silver, made their appearance,

⁵ *Ibid.*, p. xxxi.

while the placks and bawbees of later reigns are equally significant as signals of distress. At the same time the groats and half-groats of 'fine silver' steadily deteriorated in quality as compared with the contemporary English issues. Over and over again the Acts of the Scots Parliament bear pathetic witness to the futility of endeavouring to cure the malady by laws that were no better than pious resolutions. A grim commentary on such attempts is furnished by the succession of English proclamations raising the rate of exchange against Scottish money or crying it down entirely.⁶ The effect of all this was as widespread as it was disastrous. As Burns puts it: "The great evil attending a reduction of the standard of the coins in Scotland as in other countries was, that in actual practice this reduced standard was apt to be still further reduced, so that from time to time it was found necessary to call in the debased money at prices greatly below the nominal values at which it had been issued—a source of great hardship and loss to the people."⁷

The climax was reached in the reign of James III. The currency trouble was unquestionably one of the immediate causes of the tragic happenings at Lauder in 1482, when, on the eve of a war with England, a number of the leading nobles fell upon the king with superior forces as he was marching south at the

⁶ See Cochran-Patrick, *Records of the Coinage of Scotland*, i, pp. 6 f., 9 ff., &c. An opportunity for retaliation came in the sixteenth century, when Henry VIII began to tamper with the English silver currency; in 1545 and again in 1547 the Privy Council of Scotland took energetic action (*ibid.*, p. 70) against the "grotes with the braid face" or "bagcheik grotes", as they were appropriately nicknamed from the realistic portrait of Henry on the obverse.

⁷ *Coinage of Scotland*, i, p. 286.

head of his army, seized and hanged certain of the Court favourites whom they considered responsible for their master's policy, laid violent hands upon James's own person, and interned him in Edinburgh Castle. A cardinal feature of the ultimatum they had presented was that the debased pennies and halfpennies then in circulation should be redeemed at their face value. And in an anonymous prose chronicle, appended to one of the manuscripts of Wyntoun's metrical history of Scotland,⁸ the condition of the coinage is made responsible for much of the distress and misery that led to the rebellion. In that document the state of the country in and about 1482 is thus described:—

"Thar was ane gret hungyr and deid in Scotland, for the boll of meill was for four pundis; for thar was blak cunye in the realm, strikkin and ordinyt be King James the Thred, half-pennys and three-penny pennys, innummerabill, of coppir. And thai yeid⁹ twa yer and mair. And als was gret wer betwix Scotland and Ingland, and gret distruction throw the weris was of corne and catell. And thai twa things causyt baith hungar and derth, and mony pur folk deit of hungar."

The words "blak cunye" in this passage have generally been interpreted as equivalent simply to "debased coinage". Mr. Cochran-Patrick, for instance, was disposed to identify the chronicler's "half-pennys" with billon pennies, and his "three-penny pennys" with billon placks.¹⁰ But there are difficulties. It is quite possible that debased silver may sometimes have been

⁸ The manuscript is in the British Museum (Royal MSS. 17 D. xx). The chronicle is reprinted in Pinkerton's *History of Scotland*, vol. i, p. 503.

⁹ yeid = gaed, went, i.e. passed current.

¹⁰ *Records, &c.*, p. cxxiii, foot-note.

spoken of loosely as 'black money': the question is left open by the *New English Dictionary*.¹¹ It is plain, however, that, like the French *monnaie noire*, the term is properly applied only to coins of copper or of 'black' billon—that is, billon so heavily alloyed with the baser metal as to be practically indistinguishable therefrom. Again, a firm line between white and black is drawn in an Act of the Scots Parliament of October 12, 1467: "The quhyt Scottis penny and half penny to haif cours as thai war wont to haue And the striking of the black pennyis to be cessyt that thar be nane strikyn in time to cum wnder the payne of dede." Moreover, almost exactly a year before (October 9, 1466) the Legislature had given explicit instructions for the issue of copper farthings: "Item it is statute for the eise and sustentation of the kingis liegis and almous deide to be done to pure folk, that thare be cunyeit coppir money four to the penny, having in prente on the ta parte the crois of Saint Androu and the crovne on the tother parte, with superscripcione of Edinburgh on the ta parte and ane R with James on the tother parte." It should be added that these pieces, though "cunyeit four to the penny", circulated originally as halfpennies.¹²

They were the earliest copper coins to be minted in Great Britain; nearly a century and a half were to elapse before England followed suit in 1613. And so rare and inconspicuous were the specimens which had survived that, in spite of the detailed description embodied in the Act providing for their issue, they remained wholly unrecognized until Edward Burns's

¹¹ Vol. vi, p. 603, *s.v.* MONEY, BLACK.

¹² Burns, *op. cit.*, ii, p. 168.

Coinage of Scotland was published in 1887. Even Burns knew of only seven examples. In the circumstances it is scarcely surprising that his predecessors should have inclined to the view that the statute of 1466 had remained a dead letter,¹³ and that allusions in official documents to black money—such as that in the Act of November 20, 1469, to “Oure Souerane lordis awne blak moue strikkin and prentit be his cunyouris”—were to be interpreted as referring merely to the debased placks and pennies of ‘white’ billon.¹⁴ This explanation, already severely shaken by Burns’s identification of the ‘black farthings’, has now been swept aside by the sudden emergence of a mass of new and unexpected testimony. The situation is still far from being completely clear. But it can at least be positively asserted that during the fifteenth century copper coins were current in Scotland to a much larger extent than any of those who have touched on the subject had suspected. As will be seen from the account that follows, some of the points incidentally raised by an examination of the fresh evidence are as curious as they are novel.

When the Ancient Monuments Act of 1913 became law, the guardianship of the ruins of Crostraguel was entrusted to H. M. Office of Works by the Deans of the Chapel Royal, in whom the ownership of the Abbey is vested under deed of gift from the Crown. During the past five years operations necessary to prevent further decay have been in progress. A minor

¹³ J. D. Robertson, *Handbook to the Coinage of Scotland* (1878), p. 125.

¹⁴ Cf. e. g. Cochran-Patrick, *Records*, &c., i, p. cxxviii.

feature of these was the clearing out, in the spring of 1919, of a choked-up drain which ran in an easterly direction on the south of the cellars. Originally it had been the bed of a small stream whose current had been utilized to flush the latrines, which were situated at the outer end of a long range of buildings on the line of the south transept. In removing the rubbish the workmen came upon a few fragments of glass, and a large number of objects of metal, including many coins. From the written reports of Mr. W. S. Menzies, who was in immediate charge, as well as from additional information which he has been good enough to give me orally, I learn that the bulk of the finds came either from that portion of the drain which had formed the actual trench of the latrines, or from a stretch of ten yards lying immediately to the east of it. They were imbedded at irregular intervals in the 12 inches of silt composing the lowest stratum of the 4½ feet of débris with which the drain was filled. It will be evident from this account that it was through the latrines that the various articles had found their way into their odd resting-place, each travelling just as far as the strength of the current would carry it at the moment. In view of the tiny size of many of them, their salving by a process of washing and riddling reflects the greatest credit on the care and patience of the staff of the Office of Works. On the conclusion of the search they were all forwarded to head-quarters at Westminster, when the coins were in the first instance submitted to Mr. G. F. Hill of the British Museum for an opinion. A casual examination was sufficient to show Mr. Hill that they were of quite exceptional interest, and he recommended that, as the

discovery was a Scottish one, I should be asked to follow it up. The whole of the material was accordingly put at my disposal by Mr. C. R. Peers, Inspector of Ancient Monuments, to whom, as well as to Mr. Hill, I am further indebted for generous help on special points.

As soon as the collection had been sorted out and looked at critically, a division into two groups became apparent, and was therefore adopted as the natural basis of arrangement. The first group contains merely a few miscellaneous objects which must have dropped, or been thrown, into the trench at intervals extending over a long period of time. The second group is not only much larger but also much more homogeneous, so homogeneous indeed as to leave no room for doubt that the articles of which it consists were jettisoned simultaneously and of deliberate purpose, probably because an emergency had arisen which made it desirable to have them thrust out of sight as speedily and completely as might be. While the general principle of classification just stated was plain, its application presented occasional difficulties. In other words, every now and again it was impossible to be absolutely confident as to the category in which a particular object ought to be placed. Fortunately in such cases the relative importance of the objects concerned was virtually negligible. The fact of the ambiguity will nevertheless be noted in the description.

We shall begin with Group I:—

GLASS. (a) A rectangular fragment of dark-green stained glass, having a diaper pattern on one side; it has originally measured about $2'' \times 0.9''$, but one of the corners has been broken away. (b) Four small fragments of a vessel, probably a vase, of fine Venetian glass, decorated with

opaque lines and internal gilding; two apparently belong to the sides of the vase, the third is a portion of the lip, and the fourth is a 'prunt', or bramble-like ornament, which may have been attached to the stem.

COINS. (a) *Scottish*—A silver groat of James I; a billon penny of James II; two billon placks of James V; a copper turner or bodle of Charles I, the only one of the five Scottish pieces that is even in fair condition. (b) *English*—Two silver pennies of one of the earlier Edwards, probably Edward II or Edward III, in good preservation. (c) *French*—A double tournois of Francis I (1515–47) of black billon; struck at La Rochelle.¹⁵

JETTONS. Two 'abbey-counters' of brass. The larger, a 'Nuremberg jetton', has a diameter of 1.1", and has on the one side a conventionalized representation of a ship, while on the other side are four fleurs-de-lis within a lozenge-shaped framework; the legends are meaningless. (Cf. Barnard, *The Casting-Counter*, &c., p. 210, No. 9, Pl. xxix. 9.) The smaller, which is so much clipped as to leave a diameter of only 0.7", has on the obverse a shield charged with fleurs-de-lis, and on the reverse a cross,—types imitated from French fifteenth-century gold. Both are of the same period. The clipping of a brass piece is difficult to account for, and suggests that the jettons may possibly belong to Group II.

OTHER OBJECTS OF METAL. (a) A ring of soft white metal, perhaps silver, decorated with a cable-pattern and having a heart-shaped ornament in place of a stone; it has a diameter of 0.85", and was probably intended for the forefinger. (b) Two fragments of a very small iron sheath of quadrangular section, with pieces of wood adhering to the inside. (c) The brass matrix of a seal (Fig. 1), leaf-shaped and measuring 1.3" × 0.8". The back is smooth, with a midrib which runs from end to end, gradually broadening and thickening as it ascends, until it terminates at the top in a projecting loop. The loop may conceivably have been used for suspension, although it seems more likely that its real purpose was to serve as a handle when the seal was being impressed. The device, which recalls that

¹⁵ *Obv.* [FRAN · D · G ·] FRAN[COR · REX] Three fleurs-de-lis. *Rev.* SIT · NOME[N · DEI · BENEDI]CTVM Cross, within a tressure of four arcs; beneath cross, H.

of the general seal of the Abbey,¹⁶ is divided into two equal parts. Above, within a shrine surmounted by a cross, is a half-length figure of the Virgin, offering her breast to the Holy Child; beneath, under a canopy, is a half-length



FIG. 1.

figure of a monk kneeling with hands upraised in adoration. Around is the legend *S·II·MÖHACH·DE·CARR·*, where *S* is, of course, a contraction for *Sigillum*, while *II* may perhaps denote *H[enrici]*?

It is worthy of remark, as confirming the principle of division adopted, that the period within which the constituent elements of Group I must be supposed to have accumulated corresponds roughly to the length of time during which the buildings were inhabited. The limits are given by the coins, which cover all the centuries from the fourteenth to the seventeenth. The jettons may safely be dated to *circa* 1500. The Venetian glass, on the other hand, as Mr. A. O. Curle informs me, is considerably later. For the seal-matrix, again, a fourteenth-century origin is most probable. True, the spelling of the local name seems older; in the Crosraguel documents of the fourteenth and fifteenth centuries the common forms are 'Carrio', 'Carrik', 'Carryk', and 'Carryc', whereas we have

¹⁶ See *Charters*, ii, Frontispiece.

to go back to the thirteenth for 'Karrec' (1244), 'Carrek' (1236), and 'Carreik' (1225).¹⁷ Style, however, is the only trustworthy criterion. It should be added that we have no means of identifying the "monk" who chose a territorial designation so wide as "of Carrick", and yet deemed it enough to indicate his own name by a mere initial.

Before dealing in detail with Group II, it will be well to explain generally that it is made up partly of coins, and partly of an *omnium gatherum* of brass, copper, and lead. The coins number 197 in all, 20 being of billon, 156 of bronze or copper, and 21 of brass. The billon pieces are sadly discoloured. But those of copper and of brass, though sometimes presenting a wholly or partially blackened surface, are frequently not far from being as fresh and bright as if they had been recently minted.¹⁸ The striking is almost invariably bad. Thanks to this, rather than to the wear and tear of circulation, the task of decipherment was extremely hard. Eventually, however, it proved possible to distinguish five separate classes, some of them containing several different varieties. One of these classes is entirely unknown elsewhere, while another has hitherto been regarded as native to the Continent. The weights, it may be observed, are anything but uniform, even when the types are identical, and the shapes are in many instances irregular, sometimes approximating to the square. Finally, the presence of an unmistakable 'waster', struck only on one side, has a peculiar significance. Taking every-

¹⁷ See *Charters*, i, *passim*.

¹⁸ Mr. Wilson Paterson of the Office of Works assures me that, beyond washing the mud away, no effort was made to clean them.

thing together, we are forced to the conclusion that the coins of Group II were minted close to the spot where they were found. That opinion is confirmed by the occurrence in the *omnium gatherum* of two copper blanks that have never been struck at all.^{12a} It is further borne out by the character of the remaining oddments of metal, of which there are as many as 385, chiefly of brass; they give the impression of being raw material out of which blanks were intended to be fashioned. In short, coins and oddments combined go to form a medley which cannot be explained satisfactorily except on the hypothesis that we are face to face with the sweepings of a moneyer's workshop which had to be hurriedly abandoned. The coins will require a somewhat full discussion. Much more summary treatment will suffice for the oddments, and it will help to clear the ground if we get rid of them first.


The list is as follows:—

BRASS. (a) *Tags*—213 small pieces of brass, not unlike tags for bootlaces. They range in length from 1.5" to 0.5", with an average of about 0.75". The diameter seldom exceeds 0.05", and the average weight is $3\frac{1}{2}$ grains or less. Mr. Menzies has suggested to me that their original purpose was to be used as tapestry ends. (b) *Buckles*—six brass buckles, two of which are broken, and portions of four others. The tongue remains in only two cases. (c) *Pins*—forty-three brass pins, complete with heads, and portions of fifteen others. They vary greatly in thickness, some being extraordinarily fine, and range in length from 2.4" to 0.8". The heads are generally rolled, but occasionally round. That of the longest of all, however, is peculiar:

^{12a} On re-examining these, I am inclined to think that an attempt has been made to strike one of them. If so, the attempt has been a failure, and the blank must have been thrown aside as a 'waster', for it has never borne any intelligible design, being for the most part entirely smooth, though unworn.

the metal divides at the top and then bends round on either side till it joins the stem again, thus forming a 'crutch', with two complete loops. (d) *Needles*—six brass needles or portions of needles. The only one which is perfect has a length of 2.45". Another, which wants the eye, must originally have measured 3". (e) *Mountings and clasps of books, caskets, &c.*—twenty-two fragments, some of them decorated with hatched markings. (f) *Miscellaneous*—sixty-two articles or portions of articles, including a weight (97 grains), an ear-pick, two fragments of chain-armour, a small section of 'Trichinopoly' chain, part of a mounting that has perhaps belonged to a knife, two small staples, part of a hinge, an 'eye', hooks, detached links of chains, and one or two portions of thin sheets, suitable for cutting into blanks and showing marks of the scissors.

COPPER. (a) *Buckles*—two copper buckles, one of which is complete with its tongue, and portions of two others. (b) *Miscellaneous*—a portion of thick copper wire, a hook, and a round-headed stud; two small indeterminate fragments; two unstamped blanks, weighing respectively 3 and 2.5 grains; a small piece of melted copper, and a very small fragment which is obviously a 'splash' from the melting-pot.

LEAD. (a) *Bullae*—six fairly complete, four of them bearing more or less recognizable devices. One has what seems to be a mitre, with indecipherable markings to l. above; another has a small fleur-de-lis, with  beneath it; a third has a gateway, with triangular pediment and porticulis, flanked by two tall pillars; and the last has the remains of a wreath, which may have enclosed some emblem. (b) *Miscellaneous*—a small oblong (0.65" x 0.5" x 0.04"), having on it the mark of the Incorporation of Hammermen (a hammer surmounted by a crown), and fifteen nondescript leaden fragments of various shapes.

The total weight of the oddments just enumerated is 3400.5 grains, 2527 being of brass, 347 of copper, and 526.5 of lead. They would thus have been sufficient for the production of a large number of blanks of the size required for the coins that were found along with them; the brass alone might easily have been

good for as many as 400. The suggestion that this is the purpose for which they were intended is supported by their general character. The evidence of the copper—the two unstamped blanks, the lump from the melting-pot—is specially important. That of the brass, however, is hardly less convincing. It is true that isolated objects like the ear-pick may conceivably belong to Group I. But the appearance of whole sets, such as the tags or the pins, is not to be accounted for on any theory of casual loss. Moreover, some of the pieces would appear to have been deliberately broken up for convenience of handling. The testimony of the lead is more uncertain. Had the *bullae* stood by themselves, one might have hesitated to place them in Group II. It is the presence of so many other fragments of the same metal that has determined their place. If it be objected that there are no leaden coins, the reply is that the lead may have been used in the manufacture of 'white' billon.

Leaving the *omnium gatherum*, we come to the coins. In describing these it will be best to begin with the classes that are already familiar to numismatists:—

PENNIES OF JAMES III.



FIG. 2.

Obv.—†ITQOBVS·D·GRAT·REX. Bust of the king, crowned, facing.

Rev.—*VILLI MED INBV RG^x. Cross pattée;
in each quarter, three pellets.

Billon. Eleven specimens. Weights in grains— $7\frac{1}{2}$, 7, 7, $6\frac{1}{2}$, $5\frac{1}{2}$, 5, $4\frac{1}{2}$, $4\frac{1}{2}$, $3\frac{1}{2}$, 3, $2\frac{1}{2}$. All are in such poor condition that the description and illustration have had to be eked out by reference to Burns, *Coinage of Scotland*, ii, pp. 161 f., and iii, Pl. xliii, Fig. 562. The lettering is usually illegible. *Variations*: One specimen seems to have read VI LILT GDI BVR, and another VII LIT GDIR BVRG.¹⁹

As has already been stated, the poor condition of the coins is in all probability due to indifferent striking, combined with the miserable quality of the metal. Their average weight is much below that of the examples catalogued by Burns (*loc. cit.*), which range from 11 grains to 4. Even without the evidence of the company in which they were found, one would have been disposed to set them down as 'contemporary imitations' rather than as genuine issues of the official mint.

PENNIES OF JAMES IV.

Obv.—✠ITGOBVSDBIGRTRRXSDOT. Bust of the king, crowned, facing.

Rev.—✠VIL LITDI GDIR BVRG. Cross pattée; in the first and third quarters, a fleur-de-lis; in the second and fourth quarters, a crown.



FIG. 3.

Billon. Nine specimens. Weights in grains— $14\frac{1}{2}$, $10\frac{1}{2}$, $6\frac{1}{2}$, $6\frac{1}{2}$, 6, $5\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, $4\frac{1}{2}$. On no specimen, except perhaps the heaviest (Fig. 3),


¹⁹ On the other hand, I cannot see for certain upon any specimen the final h, which the draughtsman has shown in Fig. 2.

are the letters completely legible. *Variations:*
 VIL LTH DIR BVRG and VIL LTH
 DIRB VRG.

Though here described as being of billon, these pieces seem to be almost of pure copper; they show little or no trace of whiteness. The heaviest, which is also the best executed, may possibly be genuine. The others are certainly 'contemporary imitations'. Apart from their bad style, their weights are significant in this connexion. The corresponding examples in Burns are much heavier, ranging from a maximum of 18 grains to a minimum of $8\frac{1}{2}$.²⁰

FARTHING OF JAMES III.

First Variety.

Obv.— I X R E X S C O T O R V M. Crown.


Rev.— V I L L T H D I R B V X R G. St. Andrew's cross; on either side, a small saltire.



FIG. 4.

Copper. Nine specimens. Weights in grains— 7 , $4\frac{1}{4}$, $4\frac{1}{4}$, 4 , $2\frac{1}{4}$, $2\frac{1}{2}$, $2\frac{1}{2}$, $2\frac{1}{4}$, $2\frac{1}{4}$. The shapes are irregular, one being almost square. The striking is again very bad. Only on two examples is the lettering at all legible, and only on one of these are the mint-marks distinguishable, while the stops are everywhere uncertain. Fig. 4 has been completed with the help of Burns, *Coinage of Scotland*, iii, Pl. xliii, Fig. 560 A.

²⁰ *Coinage of Scotland*, ii, pp. 226 f.

Second Variety.

Obv.—+ITQOBVS×DHI×GRK×. The letters **I·R**, surmounted by a crown.

Rev.—+VILLIT×HDIRBVR×. St. Andrew's cross, with a crown on the upper portion; on each side and beneath, a small saltire.



FIG. 5.

Copper. Nine specimens. Weights in grains — $6\frac{1}{2}$, $5\frac{1}{2}$, $4\frac{1}{2}$, 4, $3\frac{1}{4}$, $3\frac{1}{4}$, $3\frac{1}{4}$, 3, $2\frac{1}{4}$. The shapes here are less irregular than was the case with the First Variety. The lettering is also, as a rule, more legible. On one or two examples the saltire between the lower arms of the cross is not visible.

If we recall the detailed description given in the Act of October 9, 1466, of the copper money that was to be minted four to the penny—"having in prente on the ta parte the crois of Saint Androu and the crowne on the tother parte, with superscrpsione of Edinburgh on the ta parte and ane **R** with James on the tother parte"—it will at once be clear that the eighteen copper coins recorded above are 'black farthings' of James III. Burns, as we saw, published seven similar pieces and identified them correctly, drawing attention at the same time to certain features which suggested that the Second Variety, to which four of his seven specimens belong, was of later issue than the First.²¹ As there is documentary evidence to prove that, in 1466, at least 1,440,000 were ordered to

²¹ *Op. cit.*, ii, pp. 169 f.

be struck,²² the excessive rarity of the surviving examples may seem to be surprising. Yet, when one has handled those from Crosraguel, and has come to appreciate their small size and their general flimsiness, the wonder grows that any at all should have been preserved.

According to Burns (*loc. cit.*), the standard weight for the issue of 1466 was 7.36 grains. Two of his specimens of the First Variety are more than up to this level ($7\frac{3}{4}$ and $7\frac{1}{2}$ grains), and the third is considerably above it (9 grains). His inventory of the Second Variety is not quite so satisfactory. Of one of the four he had only an indirect knowledge. The others weighed 8, $6\frac{1}{4}$, and $5\frac{1}{4}$ grains respectively. So slight a falling off may well be accidental. It is otherwise with the new examples from Crosraguel. In no single one of the eighteen cases is the standard weight attained. In as many as eleven there is a deficit of 50 per cent. as compared with the norm. The average for the nine farthings of the First Variety is $3\frac{1}{4}$ grains, while for the nine of the Second it stands at $4\frac{1}{4}$. It will be remembered that the billon pennies already dealt with were characterized by an exactly analogous weakness. Had our list stopped short here, therefore, it would have been fair to infer that the products of the workshop at Crosraguel were merely 'contemporary imitations', such as must have been abundant in these lawless and unsettled times. But there is yet another variety, whose existence would have sufficed to prove, even without the support that will be forthcoming presently, that the monks were not mere copyists. They were innovators.

²² *Ibid.*, p. 168.

Third Variety.

Obv.—Similar to *Obv.* of First Variety.

Rev.—Similar to *Rev.* of First Variety.

Brass. Twenty specimens. Weights in grains— $10\frac{1}{2}$, 10, 9, 9, $6\frac{1}{2}$, $6\frac{1}{2}$, $6\frac{1}{2}$, $6\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, 5, $4\frac{1}{2}$, $4\frac{1}{2}$, 4, $3\frac{1}{2}$, $2\frac{1}{2}$, $2\frac{1}{2}$, 2. The irregularity of the shapes is very marked, the majority being more nearly square than round, as if the blanks had been cut from sheets with a scissors. As on the copper, the legends are very imperfectly legible. On one specimen, however, a well-marked saltire is visible between the third and fourth letters of *VILLI*.

When these pieces are placed alongside of the examples of the First and Second Varieties, their bright yellow sheen is remarkable. So far as I am aware, no other British coins of brass have come down to us from any period.²² On the other hand, the Continent provides an instructive analogy. Just as the farthings of copper are 'black' money, corresponding to the continental *monnaies noires*, so the farthings of brass must be 'yellow' money—a counterpart of the *monnaies jaunes* occasionally mentioned in mediaeval documents, as for instance at Cambrai.²³ Incidentally it may be noted that the *monnaies jaunes* of Cambrai were also an ecclesiastical issue. But in strictness they were tokens, struck for a definite and limited purpose, although they found their way into circulation as an ordinary currency;²⁴ whereas there is nothing to indicate that

²² For early forgeries, however, see *Brit. Num. Journ.*, iv. 1908, pp. 311 ff.

²³ *Mém. de la Soc. d'Émulation de Cambrai* (1823), pp. 236 ff., and p. 311.

²⁴ J. Rouyer, *Notes pour servir à l'étude des méreaux* in *Rev. Numismatique*, 1849, p. 268. I take this opportunity of acknowledging my obligations to Rouyer's admirable essay.

the yellow farthings from Crosraguel were designed to serve any other end than that of coins. Nor was the use of a new metal the sole innovation for which the Abbey was responsible. There is every reason to believe that it went further, and employed types and legends of its own. The evidence for this has next to be considered.

CROSRAGUEL PENNIES.

First Variety.

Obv.—+ITQOBVS×DRI×GRT×RAX. A regal orb or mound, the globe of which is tilted slightly downwards, as is shown by the curve of the central band, while the cross on the top of the arched band projects beyond the dotted border so as to serve as a mint-mark.

Rev.—+GRVX×PALLIT×OIG×GRII·I×. Double (or triple)²⁵ tressure of four arcs, decorated with a dot at each of the four points of intersection, and enclosing a Latin cross; the whole within a plain circle, between which and the inscr. is a border of dots.



FIG. 6.

Copper. Twenty-one specimens. Weights in grains—34, 32½, 25, 24, 24, 21½, 21, 20, 20, 19½, 18½, 18, 17½, 17½, 16½, 16½, 15½, 14½, 13½, 12½, 10. *Variations in Obv.*: The C is occasionally open. Sometimes X is followed by ×, and on six examples all the stops are ×. In four cases, as is shown by the inclination of the arched band, the orb is turned slightly

²⁵ I doubt whether it is ever really intended to be triple.

to r., instead of to l. *Variations in Rev.*: GRII-RIII , GRIM , GRIM , GRIM , and GRII all occur, while two specimens read simply $\text{PELLIT} \times \text{OIE} \times \text{GRIM}$, the type (or the mint-mark) doing duty as the subject of the sentence. Here and there the C is open. The stops are usually \times or \times , but one specimen has $\times \times$ and another has \cdot . In a few instances the final stop is omitted as on the obverse. The type is rarely modified, but in one case there are three small dots at each of the points of intersection of the arcs, with a larger dot (or an annulet) in the space outside.

Second Variety.

Obv.— $+ \text{ITQOBVS} \text{ DEI} \text{ GRT REX} \text{ } \text{}$. Similar type, but with the globe tilted slightly upwards, as is shown by the curve of the central band.

Rev.— $+ \text{GRVX} \text{ PELLIT} \text{ OIE} \text{ GRIM}$. Similar type, but at each of the four points of intersection of the arcs a dot, with an annulet in the space outside.



FIG. 7.

Copper. Twenty-one specimens. Weights in grains— $35\frac{1}{2}$, $26\frac{1}{2}$, $25\frac{1}{2}$, $24\frac{1}{2}$, $23\frac{1}{2}$, 21, $20\frac{1}{2}$, 19, $18\frac{1}{2}$, $18\frac{1}{2}$, $18\frac{1}{2}$, $16\frac{1}{2}$, 16, 16, $15\frac{1}{2}$, 14, 14, 14, $12\frac{1}{2}$, $10\frac{1}{2}$, $9\frac{1}{2}$. *Variations in Obv.*: The C is sometimes open, and \cdot , \times , \times , and \cdot also occur as stops. In every case, however, the globe is turned slightly towards the r., as is shown by the inclination of the arched band. *Variations in Rev.*: GRIM and GRII . The open C is very rare. Though the mint-mark is usually present, it is omitted for lack of room in at least four cases, while in three it appears as $\cdot \cdot \cdot$. There is considerable variation in the stops;

in one instance ° and ∴ are used alternately. At the intersections of the arcs, at least five forms of ornament are used besides the dot and annulet of Fig. 7,—a single dot, a single annulet, a saltire, a saltire and an annulet, a trefoil.²⁶

Third Variety.

Obv.—+ITCOBVS·DEI·GRÆ·RÆX·. Similar type, but with a rosette at the point of junction of the two bands.

Rev.—+CRVX∴PALLIT∴OIH∴CRI. Similar type, but at each of the four points of intersection of the arcs a trefoil.



FIG. 8.²⁷

Copper. Eight specimens. Weights in grains—36, 19, 17, 17, 16½, 14½, 13½, 13. *Variations in Obv.*: the C is closed in four cases, doubtful in two others. In three instances the stops are ∴; in two they are uncertain. On four examples the globe is shown by the inclination of the arched band to be turned to the r., instead of to the l. as in Fig. 8. *Variations in Rev.*: Three examples read CRΩ. Five have

²⁶ The foregoing list of variations cannot be regarded as complete either for *Obv.* or *Rev.* Many of the coins are so badly struck that the details are uncertain.

²⁷ The draughtsman has not shown the stops in the *Obv.* legend. They are very obscure, but I think they are present in the form of small five-pointed stars. Further he has rendered the last letter of the *Rev.* legend as I-I, not I. I believe he has been misled by the edge of the fracture. Finally, in placing an annulet on the *Rev.* beyond the trefoil, he has followed the illustration in *Mém. de la Soc. des Antiq. de France*, 1855, p. 180, which he had before him; but see *infra*, p. 299.

the open C, one has CI, and two are uncertain. In three cases the stops are $\frac{c}{o}$, instead of $\frac{x}{o}$, and in one they are \times , while the remaining piece is doubtful. The ornament at the points of intersection of the arcs is in three cases a saltire with an annulet outside, in one a dot with an annulet outside, and in one a small five-pointed star.

Uncertain Variety.

Obv.—Unstamped.

Rev.—Similar to the preceding varieties, but details quite obscure.

Copper. One specimen. Weight in grains—5. This is obviously a 'waster', and attention has already been drawn to the significance of its presence.

That the fifty-one pieces just described are pennies will be clear from a consideration of their weight, as compared with that of the black farthings. Although they have never before been catalogued as Scottish, they are by no means unfamiliar to students of mediaeval numismatics. As long ago as 1835 a specimen was figured in Lelewel's *Numismatique du moyen âge*,²⁸ where it was assigned to James II of Aragon, ruler of Sicily from 1285 to 1296,²⁹ whom Dante twice over singles out for censure for his lack of kingly virtues.³⁰ In 1846 two examples were described in a German periodical,³¹ and a few years later two others, both in the Bibliothèque Nationale, formed the subject of a paper read before the French Society of Antiquaries by M. Duchalais. In this paper sound reasons,

²⁸ Pl. xv. 31.

²⁹ *Op. cit.*, iii, p. 42.

³⁰ *Purgatorio*, vii. 119 f., and *Paradiso*, xix. 137 ff.

³¹ *Num. Zeitung*, 1846, p. 144.

stylistic and other, were advanced for rejecting Lelewel's attribution, and it was argued that the coins ought to be transferred to the consort of Joanna II of Naples, Jacques de Bourbon, who for nearly two years (1414-16) enjoyed the title and prerogatives of royalty.³² In 1861 as many as nine specimens were catalogued by Neumann in his *Beschreibung der bekanntesten Kupfermünzen*.³³ There they are still placed under James II of Aragon, but the suggested correction of Duchalais is mentioned with evident approval. Finally, in vol. ix of the *Proceedings of the Berwickshire Naturalists' Club*³⁴ there is an account of two which were found about 1879 on the line of the old Edwardian wall at Berwick-on-Tweed. Curiously enough the writer, while apparently knowing nothing of what Lelewel and Duchalais had said, harks back independently to Aragon. His view is that the coins are Spanish, not Sicilian, and that they were minted by James I, who was king from 1213 to 1276—an idea that is stylistically even more impossible than that of Lelewel. He adds the fantastic surmise that they may have been brought to Berwick by some of the Gascon horsemen who are known to have accompanied Edward I in 1298, when he was marching north to victory at Falkirk.

In all these disquisitions the true character of the obverse type succeeded in escaping recognition, sometimes by the narrowest of margins. Thus in the case of the Berwick coins, which clearly belonged to the Third Variety, the representation of the orb is

³² *Mém. de la Société des Antiquaires de France*, 1855, pp. 180 ff.

³³ Bd. II, pp. 379 f., Nos. 17570-17578.

³⁴ pp. 7 f. I am indebted to Mr. J. H. Craw for this reference.

described as follows: "Within a triple circle, a hand grasps, as if to hold together, three bands stretched archwise across the disc; the middle one of which is strongest." And that is characteristic. Duchalais, indeed, realized that the object was a globe, and argued that it must be the emblem of sovereignty. But he failed to observe that the mint-mark was an integral part of the main design, and he was accordingly constrained to seek excuses for the absence of the conventional cross upon the top!³⁵ Neumann³⁶ came even nearer to hitting the nail on the head. Unfortunately, however, it was only on one particular specimen that he brought the hammer down, obviously thinking that the resemblance he had detected was purely accidental. The source of the motto on the reverse has likewise been generally overlooked. Duchalais contents himself with remarking that it is "*tout à fait dans le goût italien*".³⁷ The others do not comment upon it at all, while twice it is so mangled in transcription as to be absolutely meaningless.³⁸ In point of fact, as Mr. Peers indicated to me when handing over the find, it is the first line of a verse of the hymn of Prudentius, *Ante Somnum*:³⁹ the devout are urged to make the sign of the cross before retiring to rest, for—

³⁵ *Op. cit.*, p. 189.

³⁶ *Op. cit.*, p. 380, where he remarks of the last of the nine specimens he describes: "*Das ganze mit dem bis an den äusseren Rand reichenden Kreuze in der Umschrift einem Reichsapfel ähnlich sieht.*"

³⁷ *Op. cit.*, p. 190.

³⁸ **CRVX · DEI · ET · VIDERI** in *Num. Zeitung*, 1846, p. 144, and **CRVX · PELLIT · OË · CRVĈ** in *Bern. Nat. Club Proc.*, ix, p. 7.

³⁹ l. 133.

Crux pellit omne crimen :
Fugiunt crucem tenebrae :
Tali dicata signo
Mens fluctuare nescit.

The current theory that the coins were struck on the Continent—probably in Sicily or in Southern Italy—has not so far been overtly challenged by any one. At the same time it has always been regarded with a certain amount of scepticism by those who knew the persistent fashion in which isolated examples are wont to emerge in Scotland. Every specimen whose history I have been able to trace has been found to the north of the Tweed. The two from Berwick have already been mentioned. Here are a few others that have been brought to my notice since the present investigation began :—

Berwickshire. A few years ago Mr. John Ovens dug up an unusually well preserved specimen in the garden of Foulden House, four miles from Berwick-on-Tweed.

Haddingtonshire. In May 1919 a specimen was picked up on Traprain Law by the workmen engaged on the excavations ; it was lying on or near the surface.

Edinburgh. The Ancient Monuments Department of H. M. Office of Works have a specimen which was found by their workmen at Holyrood in January 1917.

Fifeshire. Dr. Hay Fleming has shown me four specimens belonging to the Cathedral Museum at St. Andrews. The label states that they were discovered at the Kirkheugh (now Kirkhill) in 1860.

Morayshire. There are two specimens from the Culbin Sands in the National Museum. In July 1919 Mr. Calder, Forres, brought me for identification a third specimen which he had himself picked up in the same neighbourhood, while there is a fourth from this locality in Mr. Graham Callander's private collection.

Wigtonshire. The National Museum possesses two examples from the Glenluce Sands. Mr. Ludovic McLellan Mann,

who has been responsible for a good deal of excavation in and about the shores of Luce Bay, tells me that his harvest of relics includes no fewer than ten of these pieces. In sending for my inspection the only one of them at the moment accessible—it was found in Stoneykirk Sands in May 1903—he mentioned that the stratum from which they all come yields fragments of mediaeval glass and pottery.

Ayrshire. Mr. Callander informs me that he saw a specimen being picked up on Stevenston Sands, near Irvine, and Mr. Mann writes that he knows of several others from the same locality.

The foregoing list is, of course, anything but exhaustive. Yet it is long enough to prove that the pennies with the orb and cross had a wide circulation in Scotland, particularly in the south-west. On the other hand, none seem to have been reported from England, except the two from Berwick-on-Tweed, while inquiries instituted some years ago by Mr. Hill elicited the information that they are not met with on the shores of the Mediterranean, although it is just there that we should expect them to be common if either Lelawel or Duchalais were right. Even on grounds of *provenance*, therefore, the case for a Scottish origin was already overwhelming. Now, by way of final proof, comes the evidence that specimens were actually minted at Croisraguel. But, it may be argued, is it not possible that these may be merely 'contemporary imitations', just as were the billon pennies and black farthings with which they were associated? That objection might be answered *more Scotico* by asking what was the prototype on which they were modelled, and where it is proposed to find room for it in the ordinary official series. Furthermore, when the examples from Croisraguel are compared with those from

other parts of Scotland, one can detect no sign of the former being copied from the latter. Neither in execution nor in weight is there anything to choose between them.

But the strongest justification for calling them all Crostraguel pennies is writ large upon the coins themselves. In the documents the name of the Abbey is spelt in no fewer than forty-one different ways, some of them as seemingly eccentric as "Crostragmer" and "Crostragin".⁴⁰ Nevertheless, the pronunciation of four or five centuries ago must have been substantially identical with the pronunciation of to-day. This is plain from the fact that wherever "de Crostraguel" is Latinized, it is rendered by "Crucis Regalis". Although the Latin form does not occur until 1547-48,⁴¹ it must reflect a popular etymology that had long been current. In a charter of 1415-16, for instance, the spelling is "Coursreguale".⁴² The name, then, would sound to mediaeval ears much as it does to modern ones. If we bear this in mind, we shall find it hard to resist the conviction that the two types are intended to be taken together as a 'canting badge'. On the one side, prominent alike in type and in inscription, is a *Cross*, and on the other is the orb of sovereignty, which was above all the *regal* emblem. The conceit may seem childish; but, if it be so, the same is true of devices like "the pomegranate at

⁴⁰ *Charters*, i, p. lxvi.

⁴¹ *Ibid.*, p. 103.

⁴² *Ibid.*, p. 42. In this form it is the second part, and more especially the second syllable, that is significant. As regards the first syllable, "Cours" is a not uncommon variant for the more usual "Cros" or "Cross".

Granada, the gate (*ianua*) at Genoa, the sheep issuing from a house at Schaffhausen, the monk at Munich, the ladder (*scala*) of the Scaligers at Verona, and many more".⁴³

Thus much for the mint. The date is more difficult. Even here, however, a little search reveals a clue. The earliest Scottish coins on which the king wears an arched crown—that is, a crown surmounted by an orb—are the three-quarter-face groats, formerly attributed either to James II or to James IV, but shown conclusively by Burns to have been first minted by James III about 1485.⁴⁴ On these pieces the plain cross on the top of the orb projects into the line of the inscription and is made to serve as a mint-mark, precisely as on the Croisraguel pennies. No doubt it was from them that the monkish designer borrowed the idea. We cannot, therefore, be far wrong if we assign our pennies to the last ten or twelve years of the fifteenth century, a conclusion that harmonizes perfectly with their general stylistic character. In all probability their issue extended over a considerable period. That inference may safely be drawn from the large number of dies that were employed. From this point of view the inventory of variations that was included under each of the detailed descriptions given above tells its own story plainly. And the lists would be lengthened considerably were there added to them the further variations observed on the specimens from elsewhere that have passed through my hands. One of those from St. Andrews, for instance, just like the example figured

⁴³ See my *Evolution of Coinage*, p. 98, and for similar conceits in ancient times, *ibid.*, p. 76.

⁴⁴ *Coinage of Scotland*, ii, pp. 128 ff.

by Duchalais,⁴⁵ has a trefoil *and* an annulet at each of the four points of intersection of the arcs on the reverse. That from Foulden House, again, reads OH, instead of the usual OIH, a modification which appears also on the two examples from Berwick-on-Tweed. If the published description of the latter can be trusted, they show the further variation of GRTQIT in place of GRTK.⁴⁶ Lastly, it is perhaps worth noting that a large proportion of the specimens found elsewhere than at Crosraguel belong to the Third Variety.

CROSRAGUEL FARTHING.

First Variety.

Obv.—+ITQOBVS×D×G×R×. The letters **I·R** surmounted by a crown.

Rev.—MQ RΘ PT VP. Long cross pattée; in alternate quarters, a crown and a mullet of six points.



FIG. 9.

Copper. Forty specimens. Weights in grains—
9, 7½, 7½, 6½, 6½, 6½, 6½, 6½, 6, 6, 5½, 5½, 5½,
5½, 5½, 5½, 5½, 5, 4½, 4½, 4½, 4½, 4½, 4½, 4½,
4, 4, 4, 4, 3½, 3½, 3½, 3½, 3½, 3½, 3, 2½, 1½,
1½, 1½. The shapes are irregular, two or three
being rectangular, and one octagonal. The

⁴⁵ See *supra*, p. 291, foot-note 27.

⁴⁶ *Proc. Berw. Nat. Club*, ix, p. 7. It is not easy to see how space could be found for anything save the contraction. But it is equally difficult to believe that the writer has made a mistake, because, oddly enough, he puts the spelling *gracia* in the forefront of his arguments for a Spanish origin. This is, of course, absurd, for *gracia* is the form ordinarily used on Scottish (and English) coins of the period, whenever the word is written in full.

striking is bad. *Variations in Obv.*: The stops are often doubtful, but in at least four cases the saltire after the first word is single, not double. *Variations in Rev.*: In ten cases the crowns are in the first and third quarters, and in five they are in the second and fourth, while in the remaining twenty-five no certainty is possible. One specimen reads PTV, in a single compartment, with nothing else legible. On it, therefore, the inscr. may have had the fuller form MÖR ÖTT PTV ÞÖR.⁴⁷

Second Variety.

Obv.—Similar to First Variety.

Rev.—Similar to First Variety.

Brass. One specimen. Weight in grains— $6\frac{3}{4}$. Octagonal in shape. The striking is bad, and the types and legends consequently obscure.

Third Variety.

Obv.—Trefoil with short stalk; in the centre, a mullet of five points; within each of the leaves, a fleur-de-lis pointing outwards; to l. and r. outside, in the spaces between the central leaf and the lower ones, a crown.

Rev.—MÖ PTV VP ÖR. Long cross, with floriated ends; in each quarter, a mullet of five points.



FIG. 10.

Copper. Forty-two specimens. Weights in grains— $8\frac{1}{2}$, $8\frac{1}{2}$, $7\frac{1}{2}$, $7\frac{1}{2}$, $7\frac{1}{2}$, 7, 7, $6\frac{1}{2}$, 6, 6, 6, $5\frac{3}{4}$, $5\frac{3}{4}$, $5\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, $5\frac{1}{2}$, 5, $4\frac{3}{4}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, 4, 4, 4, $3\frac{1}{2}$, $3\frac{1}{2}$, $3\frac{1}{2}$, $3\frac{1}{4}$, 3, $2\frac{1}{2}$, 2, $1\frac{1}{2}$, $1\frac{1}{2}$, $1\frac{1}{2}$, $1\frac{1}{2}$. The shapes are irregular, occasionally rectangular, and the striking is

⁴⁷ See the inscription on the Third Variety, *infra*.

once more bad. In fifteen cases the inscr. is so much obscured that one cannot be certain that some of the pieces are not really of the Fourth Variety. *Variation in Rev.*: The form ϵ occurs on two or three examples.

Fourth Variety.

Obv.—Similar to the Third Variety.

Rev.—Similar to the Third Variety, but with MRO
 RH PT VP .



FIG. 11.

Copper. Five specimens. Weights in grains— $10\frac{1}{4}$, 7, $6\frac{1}{2}$, $6\frac{1}{2}$, $6\frac{1}{2}$. On no example is the inscr. completely visible. *Variations in Rev.*: On one the fourth letter has the form H . The mullets on another have six points.

There can be no doubt as to these eighty-eight coins being farthings: it will be noted that they correspond in weight to the black farthings of James III, from the Second Variety of which the obverse type of the First and Second Varieties of the Crosraguel pieces has evidently been copied. The obverse type of the Third and Fourth Varieties, on the other hand, appears to be entirely novel. Moreover, on the latter, the royal name does not find a place at all, a clear indication that they cannot be 'contemporary imitations' of any regular issue, but must represent an independent Abbey mintage. Such a mintage would, of course, be designed primarily for use within the limits of the territory over which the Abbot's authority extended. Whether the farthings ever obtained the wide circulation that the pennies enjoyed, it is impos-

sible to say. They are so small and inconspicuous that the absence of evidence is not necessarily decisive; what happened in the case of the black farthings of James III should serve as a warning.⁴⁸ Hitherto there was no reason to suspect that the Crostraguel issue existed. Henceforward examples will be looked for, and may quite conceivably be discovered in unexpected places. Indeed, since this inquiry began, I have had two previously unidentified specimens of the Third Variety brought to my notice by Mr. John Allan. They had been presented to the British Museum ten years ago, when they were classified as 'uncertain'. Nothing was known as to their *provenance*, but the donor, Mr. W. H. Valentine, had expressed the opinion that they might be Scottish.

Great interest attaches to the inscription, for help in deciphering which I am indebted to Mr. Hill. Its obvious expansion is **MONETA PAVPERVM** or "Money for the Poor". The legend has no counterpart on contemporary English or Scottish coins, but it occurred to me that it might have been borrowed from France, particularly as Crostraguel was a Cluniac foundation. I accordingly communicated with M. Adrien Blanchet of Paris, on whose guidance I knew I could rely. In spite of his familiarity with the mediaeval numismatics of his native country, M. Blanchet was unable to provide me with a French analogy. On the other hand, he drew my attention to a curious parallel from the Low Countries, which is figured and described by Engel and Serrure.⁴⁹ It is

⁴⁸ See *supra*, p. 275.

⁴⁹ *Numismatique du moyen âge*, iii, pp. 1146 f.

a fifteenth-century *denier* struck at the Church of St. Martin in Utrecht, and having on the reverse **DIT · IS · DER · ARMEN · PEN(ning)** or "This is Money for the Poor". The coincidence is remarkable. But it would be rash to interpret it as implying any direct connexion between Utrecht and Crosraguel. In all likelihood it is purely fortuitous, explicable as the result of the working of similar causes in Scotland and in Holland. If we can determine what these causes were, we shall be in a position to appreciate the full significance of the inscriptions.

Engel and Serrure regard the Utrecht legend as meaning that the coins were destined to be distributed as alms. That interpretation is too narrow; it conveys but a part of the truth. Indeed, to impress a special stamp upon pieces intended for almsgiving would to some extent defeat the purpose of the dole, by rendering it less easy for them to be absorbed in the ordinary currency. Other alleged instances will hardly bear investigation. Two of the most colourable may be briefly mentioned. Engel and Serrure⁵⁰ register and describe as a "special issue for royal almsgiving" a unique silver penny of Pepin which has on the obverse **DOM · PIPi** and on the reverse **ELIMOSINA**. Their view is, however, rejected by Blanchet,⁵¹ who suggests that the penny "has been struck by some church which used the legend to signalize the monetary concession that the king had granted it for its maintenance and support". Again, many years ago, M. Dancoisne published, in the *Revue de la Numis-*

⁵⁰ *Op. cit.*, i, pp. 199 f.

⁵¹ *Manuel de Num. française*, i, 1912, p. 357.

matique belge,⁵² tokens from Arras which he considered to be maundy money on the ground that they were inscribed **MERELLVS MANDATI PAVPERVM**. The appearance of the word *mandatum* links them at once with the feet-washing; it was the usual name of the ritual, whence the English 'maundy'.⁵³ But the fact that they were *merelli* is inconsistent with the idea that they were distributed among the poor persons whose feet had been washed. Rather, they were handed to the ecclesiastics who were present, as a means by which participation in the ceremony could afterwards be attested.⁵⁴

For a really illuminating parallel we have to leave the Continent and the middle ages, and pass to the England of the late seventeenth century. Over and over again the copper tokens that were then so common strike a note which is almost startling in the closeness of its resemblance to that sounded at Crosraguel. There is abundant justification for the remark that "the main idea and reason for their issue was, in very many cases, kept well in view—namely, that of being of essential service to the poorer residents".⁵⁵ Here are a few instances culled at random—**REMEMBER THE POORE** (Andover, 1658), **FOR THE POORE** (Andover, 1666), **FOR YE POORES BENEFIT** (Andover, 1666), **THE POORE'S HALFEPENY OF CROY-**

⁵² ii, 1843, pp. 8 and 12 f.

⁵³ The words of the first antiphon sung at the celebration were taken from those addressed by Christ to His disciples after He had washed their feet: "A new commandment (*Mandatum novum*) I give unto you, That ye love one another".

⁵⁴ For the use of *méreaux*, in general, see the already cited article of Rouyer in *Rev. Num.*, 1849, pp. 356 ff., *passim*.

⁵⁵ Williamson's ed. of Boyne's *Trade Tokens*, i, p. xxiv.

LAND (Crowland, 1670), FOR THE POORES ADVANTAGE (Southwold, 1667), TO SUPPLY THE POORES NEED IS CHARITY INDEED (Lichfield, 1670). But it must not be supposed that such expressions as "the poor's benefit", "the poore's advantage", and "the poore's need" refer solely to alms-giving. The provision of an adequate supply of small money was at least equally important. This is clearly brought out by the **FOR CHANCE AND CHARITIE** of Tamworth, and it is set forth at length in a State Paper of August 10, 1651,⁵⁶ which contains "Reasons submitted by Thomas Voilet to the Mint Committee to prove the necessity of making farthing tokens, and half-farthings either of copper or tin". The essential points deserve quotation:—

1. "Money is the public means to set a price upon all things between man and man, and experience has sufficiently proved in all ages that small money is so needful to the poorer sorts that all nations have endeavoured to have it." 2. [It is also indispensable] "for the accommodation of all sorts of people who buy or sell small wares." 3. "A plentiful supply of small pieces ministers means of frugality, whereupon men can have a farthing's worth, and are not constrained to buy more of anything than they stand in need of, their feeding being from hand to mouth." 4. "Many aged and impotent poor, and others that would work and cannot get employment, are deprived of many alms for want of farthings and half-farthings; for many would give a farthing or half-farthing who are not disposed to give a penny or twopence, or to lose time in staying to change money, whereby they may contract a noisome smell or the disease of the poor."

The evils which Voilet proposed to remedy, and to meet which the token coins were struck, must have

⁵⁶ See *op. cit.*, i, pp. xxxviii f.

been felt in England long before his day. In point of fact Rouyer,⁵⁷ writing of the reign of Elizabeth, uses very similar language to describe the inconvenience that resulted from the lack of any coin of less value than the silver penny, and quotes from a contemporary author⁵⁸ a statement to the effect that, as there was nothing smaller than a penny to give to a poor person, many people were prevented from bestowing alms at all. If, in the light of this, we turn back now to the Act of the Scots Parliament of October 9, 1466, we shall understand, much better than we did before, the motives which prompted James III—or rather his advisers, for he was himself but a boy at the time—to arrange for an issue of copper. It was “statute for the eise and sustentation of the kingis liegis and almous deide to be done to pure folk”. That is merely a variant, in Parliamentary language, of the **FOR CHANGE AND CHARITIE** of Tamworth. The idea was expressed more briefly still in the **MONETA PAVPERVM** of Crosraguel. It follows that in Scotland the ‘blak cunye’ of the fifteenth century had exactly the same economic justification as our copper coinage of to-day. What happened was that it became confused in the popular mind with the depreciated silver, shared the obloquy which rightly fell upon the latter, and was in the end involved in a common condemnation. Possibly it deserved its fate, for it is by no means certain that its authors would have been content to regard it as a token issue pure and simple.⁵⁹

⁵⁷ *Rev. Num.*, 1849, p. 369.

⁵⁸ Bodin, *Réponse aux paradoxes du seigneur de Malestroict* (1566).

⁵⁹ In this connexion it is significant that the Act of the Privy

There remains a difficult and important question, which it is at least desirable to state, even although the materials for answering it appear to be inadequate. In virtue of what right did the Abbey of Crostraguel strike money of its own? No such privilege is known to have been enjoyed by any other monastic establishment in Great Britain. During the ninth and tenth centuries Canterbury and York issued silver pennies bearing the names of the archbishops, but the practice had been discontinued some time before the advent of the Norman kings. Ecclesiastical mints, of course, survived much longer. Thus, it is matter of common knowledge that under the earlier Edwards (1272-1351) five English prelates had an active interest in the striking of money—the Archbishops of Canterbury and York, the Bishop of Durham, and the Abbots of St. Edmundsbury and Reading.⁶⁰ But the money of these prelates was royal money. It bore the king's image and superscription, and was distinguishable from his other issues only by the name or the mark of the mint or of the moneyer. The same was the case with the Scottish coins struck at St. Andrews under the concession granted to the bishop there at some unknown date, and confirmed in

Council (February 23, 1554-5) which ordered the striking of lions or hardheads in the name of Mary, sets forth, as the main reason for the issue, that "the commone pepil ar gretumly hurt and endommagit, and that the vitallis sik as breid, drinke, fleache, fische, beant sauld in small ar set to higher prices and gretar derth nor they wald be in caiss thair wer sufficient quantite off small money". A judicious silence is maintained as to the enormous profit that would accrue to the Mint. (See Burns, *Coinage of Scotland*, ii, pp. 310 f.)

⁶⁰ For a detailed discussion of each of those cases see H. B. Earle Fox and Shirley Fox in the *British Numismatic Journal*, vi (1910), pp. 206 ff.

1283 by Alexander III.⁶¹ The pennies and farthings of Crosraguel are entirely different. What they seem to point to is a special abbey coinage such as one frequently meets with on the Continent.

The subject of abbey coinages is very large. Here there is room for only the baldest summary. In Italy they are rarely heard of, doubtless because there the Papal mint was an Aaron's rod that swallowed up the rods of the other magicians. In France they are rather more common. In the eleventh century, for instance, Cluny, which was the ultimate mother-house of Crosraguel, struck pennies and halfpennies with the legend **CLVNIACO CENOBIO PETRVS ET PAVLVS**, and its monetary history as a whole was considerable enough to furnish M. de Barthélemy with matter for a monograph.⁶² But it is mainly from Central Europe that the abbey coins come, many of them belonging to the age of the bracteates, although a few are a good deal later than the Reformation. Unlike the rulers of the Western Kingdoms, the Emperors were anything but chary of bestowing on religious houses the *pote-statem percussuram monetae ordinandi* or *pote-statem cudendi monetam*. Occasionally the written record survives, although no coins have been preserved to illustrate its testimony. Conversely, there are cases where the existence of the coins is the only evidence that the right was ever conferred. The latter is the type to which Crosraguel would conform.

⁶¹ See Burns, *op. cit.*, i, pp. 159 ff.

⁶² *Rec. Num.*, 1842, pp. 33 ff. At Cluny the abbey coinage was struck under Papal authority. M. de Barthélemy quotes from a Bull of Gregory VII addressed to Abbot Hugues: "... *percussuram quoque proprii numismatis vel monetae quandocumque vel quandiu vobis placuerit.*"

It may be that, if it had still been extant, the chartulary would have given us a clue, or it may be that some yet unpublished document will one day throw a gleam of light on this or other Scottish abbey coinages. In the meantime we are perforce driven to conjecture. We saw that our coins were minted in the latter part of the fifteenth century. We have good reason for believing that that was one of the great periods in the history of Crosraguel. Abbot Colin, who was head of the community from 1460 to 1491, enjoyed the special favour of James III and was a regular attender at his Parliaments.⁶³ It is in the last degree unlikely that in such circumstances he would have set up a mint of his own without the express sanction of his sovereign. A far more probable explanation is that, in view of the remoteness of the district from the centre of administration, the King may have allowed his friend the Abbot to minister to the needs of the numerous dependants of the monastery by supplying them with a special currency. Even though the concession covered the employment of distinctive types, it would not involve any serious abridgement of the royal prerogative, so long as it was strictly limited to the issue of small change, as was the English token-coinage of two centuries later. And it will be remembered that the whole of the Crosraguel pieces concerned were either pennies or farthings. It may be convenient to give a summary:—

BILLON.

Pennies of James III	11
Pennies of James IV	9

⁶³ *Charters*, i, p. xxxiii.

COPPER.

Farthings of James III.

First Variety	9
Second Variety	9

Crosguaguel Pennies.

First Variety	21
Second Variety	21
Third Variety	8
Uncertain	1

Crosguaguel Farthings.

First Variety	40
Third Variety	42
Fourth Variety	5

BRASS.

Farthings of James III.

Third Variety	20
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Crosguaguel Farthing.

Second Variety	1
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Total	<u>197</u>
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The facts as to the inauguration of the mint of Crosguaguel Abbey may be obscure. But there can be little doubt as to the manner of its end. It has already been pointed out that its activity must have been maintained for several years.⁶⁴ Presumably its suppression was one of the many steps that James IV took to ensure that his authority should be respected throughout the length and breadth of the land. "Legislation, commerce, the administration of justice, intellectual development—in all these there was a forward movement that distinguishes this reign from those that preceded it."⁶⁵ The annals of the coinage of France

⁶⁴ See *supra*, p. 298.

⁶⁵ Hume Brown, *History of Scotland*, ed. 1911, vol. i, p. 273.

present us with more than one picture of what we may suppose to have happened. At Mâcon, for example, in 1557, and again at Autun twenty years afterwards, the officials of the Cour des Monnaies made a sudden descent on the premises of the chapter, and seized the dies and other implements that were employed for the production of the tokens which were used in connexion with ecclesiastical ceremonies. The protests of the monks and their appeal to Parliament were vain. They had infringed the jealously guarded privilege of the king by allowing the tokens to be diverted from their proper purpose and to pass current among the townsfolk as ordinary coins.⁶⁰ The pretext for the raid upon Crostraguel would be somewhat different. Its upshot was very much the same. The dies and everything of value would be carried off, while the rubbish was thrown hurriedly into the latrine-trench. It was an ignominious close for an institution that seems to have been unique in Britain. Yet, if the rubbish had received more honourable burial, even the zeal of the Office of Works might have failed to unearth it. In that event we should have been left in ignorance of a singularly interesting episode. As it is, the long-standing puzzle of the *Crux pellit* pieces has been definitely solved, and a new foot-note has been added to Scottish monastic history.

GEORGE MACDONALD.

⁶⁰ See Ronyer in *Rev. Num.*, 1849, pp. 366 f.

NOTICE OF RECENT PUBLICATION.

L'Hellénisme primitif de la Macédoine prouvé par la Numismatique et l'Or du Pangée. Par J. N. SVORONOS. Paris (Leroux); Athènes (Eleftheroudakis), 1919. (Extrait du *Journal International d'Archéologie Numismatique*, vol. xix, 1918-19.) Pp. xv + 265, with 19 plates and map.

THE title of this pamphlet (a pamphlet, it should be remembered, is defined as a small unbound treatise, especially on a subject of current interest) is not the least interesting thing about it. There was a time when the Greeks despised the Macedonians as barbarians. Philip and Alexander proved very effectively that their barbarian culture was not to be despised. From an archaeological point of view it ought not to be necessary, at this time of day, to enlist the services of numismatics to prove the Hellenism of Macedon. Perhaps the distinguished author would have gained more adherents to his views if he had published his work in two forms: one, a popular book, frankly addressed to those who have to decide the political fate of the Balkan nations; the other, a purely scientific treatise, unchequered by passionate outbursts such as that on p. 116, which, first written in 1913, at the moment when "notre armée, conduite par notre nouvel Alexandre, le roi Constantin, écrase les hordes bulgares dans la grande victoire de Kilikis", has now, in this edition of 1919, required to be furnished with an appropriate palinode. But the reader who distrusts the contamination of archaeology with politics may in this case compose his fears. Even if the first impulse to take up the subject may have been inspired by the political situation, yet after the inception the argument, so far as we can see, is purely archaeological. It is true that it is special pleading; indeed, one of the cleverest pieces of special pleading that we have encountered in the field of numismatics for a long time. And it is with mingled amusement and admiration that we have read it; amusement at the ease with which it is possible to make long-accepted theories totter and all but collapse, until reconsideration restores them, slightly modified, but little the worse, to their old stability; and admiration at the whole-hearted way in which the author attacks his subject, bringing his wide reading and unrivalled ingenuity to bear with the most telling effect.

It is quite impossible to deal with more than one or two of the questions raised by him; it would require a pamphlet of the same length to cover all his field. The most striking claim that he makes is that entire series of electrum coins

which have hitherto been attributed by most writers to Asia Minor must be assigned to Macedon. It is incredible, he thinks, that the gold-producing district of Mt. Pangaeum—much more prolific in gold than any other district within the range of ancient civilization—should be unrepresented by a local coinage. It is, however, by no means an invariable rule that the peoples of a district rich in a particular metal should use that metal for purposes of coinage. It has been remarked, for instance, that certain districts of ancient Gaul which were exceedingly rich in gold had no gold coinage; thus the coinage of the Tarbelli was of silver, not of gold. M. Svoronos quite justly argues that too much stress must not be laid on the argument from provenance. The evidence should be used with the greatest caution. On p. 214 the true principle is stated: gold travels more easily than any other metal from its country of origin, especially if it comes from a country which is backward in industry and culture. Here M. Svoronos is arguing that the known Ionian provenance of the staters attributed by Gardner and Jameson to the Ionian Revolt proves nothing. On p. 155 he uses the evidence of provenance to support the attribution to Macedon of the primitive coins which have a raised square as their obverse type. If, as it appears, the provenance of this class, so far as known, is consistently Macedonian, the use of it as evidence of origin is certainly justifiable. Again, Friedländer's attribution of the little coin with the goose and lizard to Macedon, on the ground of provenance, especially as it has the support of identity in type with silver coins of the district, is quite sound. But as regards the great mass of other coins which M. Svoronos proposes to remove from Asia Minor he will have to provide evidence that they are at least frequently found in Macedon before he will shake the traditional attribution. Let us remember, too, that gold travels easily from its source even in an uncoined state. There is no need to deny that the mints of Asia Minor may have used Macedonian gold for their coins.

Let us consider his attack on the Ionian Revolt attribution a little more closely. He has no difficulty in detecting its weak points. Where, for instance, are the Revolt coins of Miletus, which instigated the Revolt, and supplied eighty ships at Lade? And what of Mytilene and Teos? Gardner has said, and with reason, that chance may yet reveal the Revolt staters of these places. But M. Svoronos can hardly find fault with Gardner for failing to provide a coinage for Miletus when he himself tells us, on the authority of Herodotus, that Miletus had not sufficient resources to bear

the enormous costs of so great a war. (We may remark in passing that all Herodotus says in V. 36 is that Hecataeus, in trying to dissuade the instigators of the Revolt, argued that Miletus was weak—an argument sufficiently belied by what Miletus did in the way of a fleet!) Another objection to the attribution is that some of the types of the alleged Revolt coins do not correspond very well with the types of the silver of cities to which they are attributed. The sow, for instance, is a very different thing from the Lesbian boar; the sow is one of the rarest of coin-types; and it does occur on the later silver of Methone. (This is one of the best points M. Svoronos makes.) Again, the electrum sphinx coins attributed to Chios seem to be rather earlier than the time of the Revolt. Those which M. Svoronos illustrates certainly are; but there is a Chian electrum stater of later style which Mr. Mavrogordato assigns, very reasonably, to the period of the Revolt (*Num. Chron.*, 1915, Plate ii. 10). M. Svoronos makes great play with the argument that none of the primitive silver sphinx coins, which seem to go with the earliest electrum, was ever found in Chios or its neighbourhood. What is his authority for this sweeping statement? Mavrogordato describes sixteen specimens of silver in his first two periods (down to 545 B.C.). (I exclude the doubtful pieces of Aeginetic standard.) Of only eight of these is the provenance stated. How does M. Svoronos know that not one of the eight remaining specimens was found in Chios or its neighbourhood? The fact that a find recently made in Chios contained no coins earlier than Mavrogordato's Period III proves nothing more than that the earlier pieces were withdrawn from currency. The argument for the Chian origin of the primitive sphinxes is further strengthened by the fact that they (with one exception, which seems to be of Euboic weight) are struck on the same "Chian" standard as the later coins. M. Svoronos would like to give them to Assorus, to which he has with some plausibility assigned the later coins with a sphinx and the letters ΑΣ. These later coins are of Euboic standard and typical flat Macedonian fabric. How many instances of the use of the Chian standard for silver at an early date in Macedon can M. Svoronos adduce? and what can be more vivid than the contrast between the thick, *punch-struck* fabric—thoroughly Asiatic—of the electrum coins which M. Svoronos so boldly claims for Macedon, and the flat *anvil-struck* pieces of silver which are certainly Macedonian?¹ As Mr. Earle

¹ Certain coins which at first sight seem to be anvil-struck were probably struck with a punch of which the head outside the area

Fox has remarked, in a passage which has not received the attention it deserves (*Corolla Numismatica*, p. 42), the coinage of European Greece, with the exception of Athens, is during the sixth century consistently anvil-struck. Punch-striking eventually succeeded anvil-striking in many places, but it is doubtful whether many mints that had begun to coin in the Asiatic manner took subsequently to anvil-striking. If Assorus produced punch-struck silver and electrum at an early period, it is highly improbable that its later coins would be anvil-struck.

Not content with appropriating the electrum and silver of Chios, M. Svoronos claims the electrum staters usually assigned to Lampsacus for Myrkinos. Space forbids our discussing his arguments in detail; suffice it to say that, for him, the monogram of **AP** which is found on a unique stater in the Jameson Collection means Aristagoras, and the **Ξ** which comes on the well-known group of rather later style means Xerxes. These ingenious identifications, supposing that the style of the coins permits of their acceptance (a question which requires to be settled), do not, however, necessarily involve attributing the staters to Myrkinos, the city which Aristagoras controlled, and which, some fifteen years after the collapse of the Ionian Revolt, we find included in the Empire of Xerxes. It is quite easy to construct another hypothesis which will fit the **AP** and **Ξ**. It must be remembered that the Lampsacenes were, like the Cyzicenes, a sort of international currency. What more natural, then, than that Aristagoras, when in need of coinage for the financing of his Revolt, should have had it made for him at the mint of Lampsacus and marked with his monogram? Equally well, too, might Xerxes, on the point of invading Greece, have made use of the mint of Lampsacus in the same way. This is of course pure conjecture; but it has the advantage of leaving the electrum staters where they were. As a matter of fact, the coins marked **Ξ** are probably later than the time of Xerxes. But, in any case, if all the electrum Pegasi are taken away from Lampsacus, what, we may ask, were the χρυσοὶ στατήρες Λαμψακηνοί, which we know, from Attic inscriptions, to have formed one of the most important currencies of the middle of the fifth century? The pure gold coinage of Lampsacus had not begun by that time. Have they all disappeared, like the staters of Phocaen?

of the design had been bevelled off or left nearly flat. See, for instance, B. M. C., *Attica*, Pl. ii. 6, 7. This fabric seems to be characteristic of most of the Revolt electrum, including the sphinx staters. It does not look like true anvil-striking.

That is, of course, possible; but, when we have a series of fifth-century electrum coins of Asiatic fabric and style, the type of which is the parasemon of Lampsacus (as is proved by the later coinage of that city), is it really reasonable to withdraw them and give them to a town in Macedon which, though it was in a gold-producing district, is not otherwise known to have issued any coins? Surely not; especially as, by M. Svoronos's own admission, the art of the coins is such that Aristagoras must have imported Milesian workmen to engrave his dies. It was simpler to send his gold to Asia Minor to be turned into coin.

The length at which we have discussed two of the many startling suggestions made by M. Svoronos may be taken as a measure of the respect which we owe to his learning. His book, even if it contains a number of highly disputable deductions, is most suggestive, like everything he has written; and little but good can, in the end, come of a thorough shaking up of our ideas about the attribution of the early electrum coinage.

G. F. H.

MISCELLANEA.

A TOURNAI HALF-GROAT OF HENRY VIII.



THROUGH the courtesy of Messrs. Sotheby, Wilkinson, and Hodge, I am able to publish an entirely new and extremely interesting coin. It is a half-groat of Tournai. The existence of a coin of this denomination has never been suspected up to the present. It resembles very closely the portrait groat, from which indeed it only varies by a slightly more abbreviated obverse legend, in size and in weight.

Obv.—mm. ζ crowned HENRICVS DVX BRVTO. Stops, saltires. Bust of king to right in profile as on the Groat (p. 181).

Rev.—Exactly similar to Groat (p. 181).

Wt. 19.5 gra. Erle Collection (Sotheby's, Dec. 1919).
L. M. HEWLETT.

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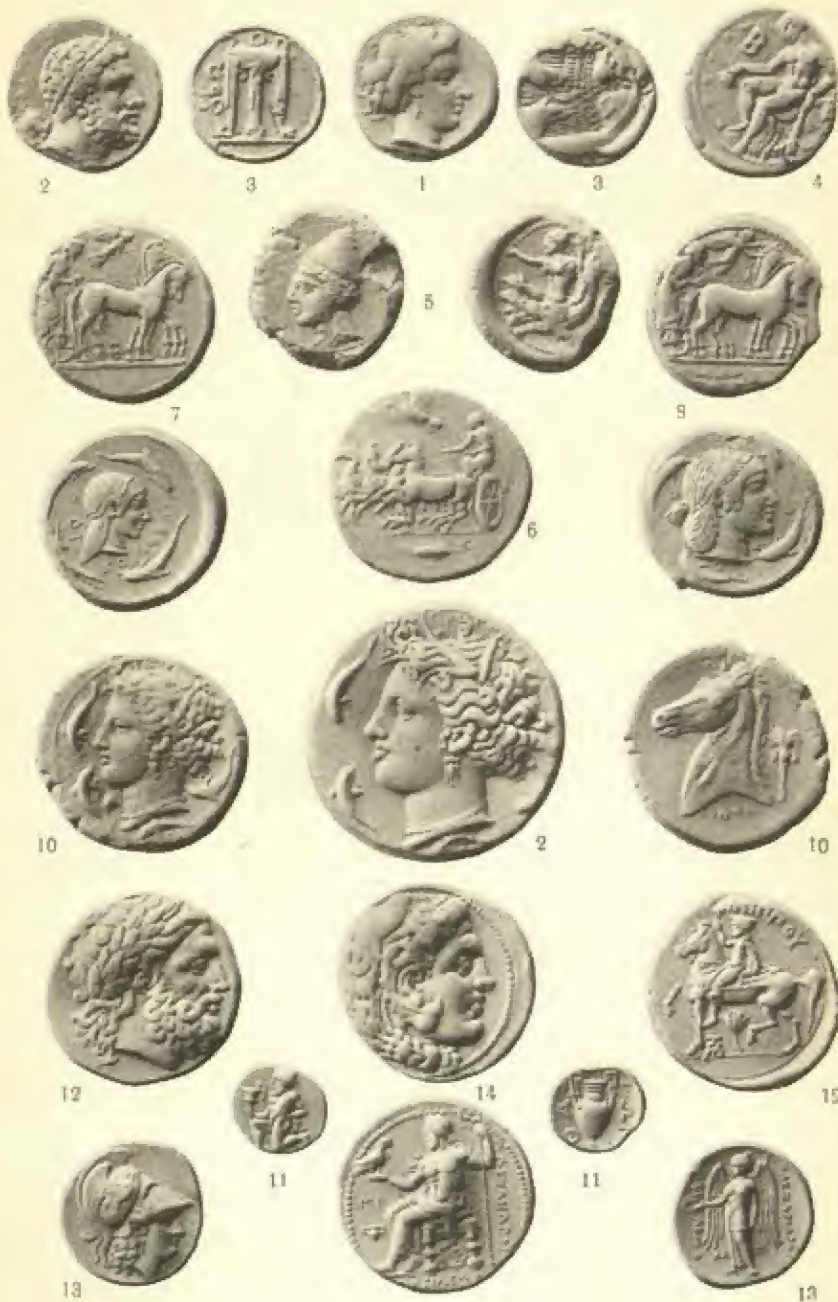
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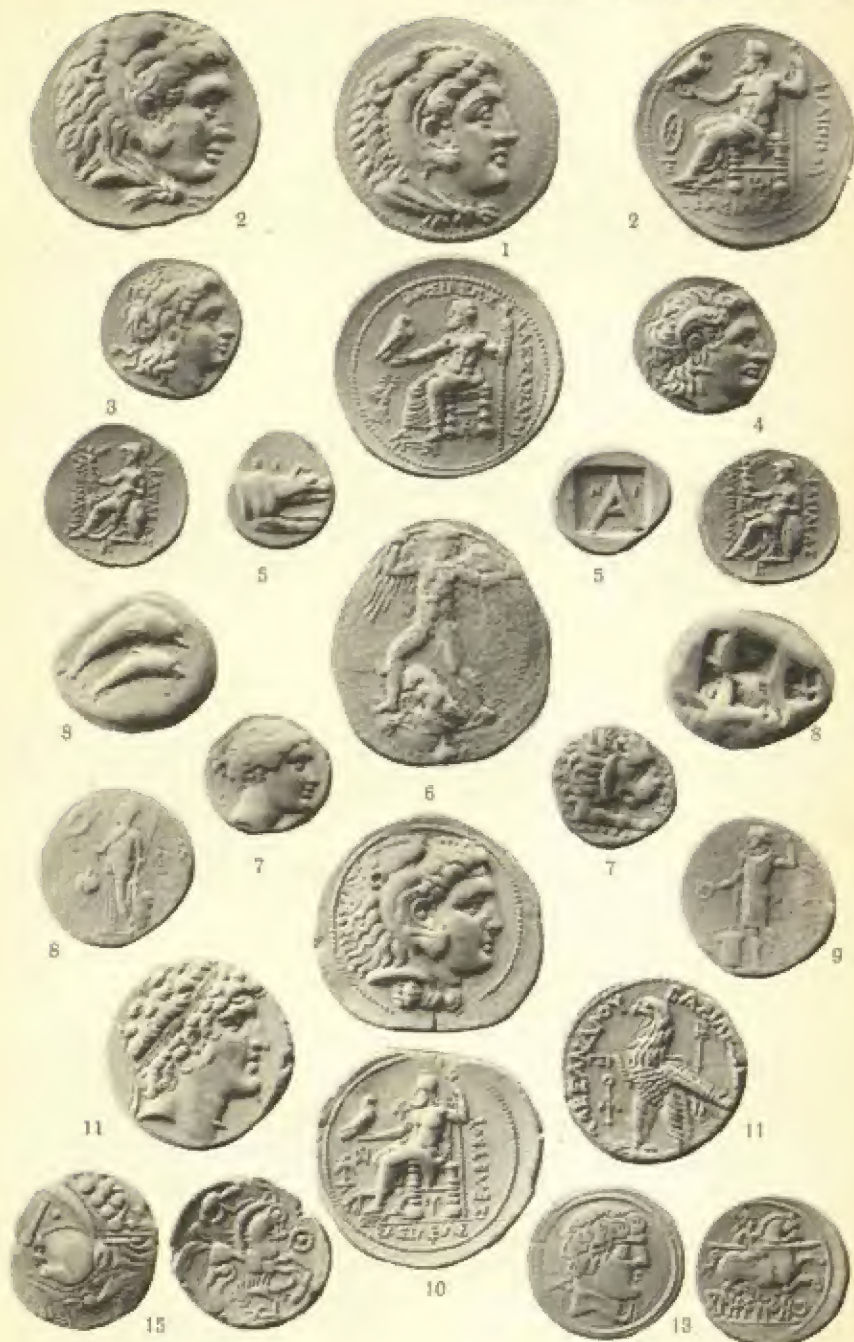
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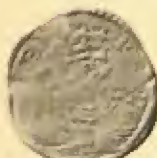
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14

TYPES OF HENRY II's. FIRST COINAGE.



MEDALS BY RICHTER AND SOLDANI.



PRE-IMPERIAL COINAGE OF ROMAN ANTIOCH.



PRE-IMPERIAL COINAGE OF ROMAN ANTIOCH.



A FIND OF BRITISH GOLD COINS



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ANTIOCHUS IX.

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1919

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- 1893 †HILBERS, THE VEN. G. C., M.A., V.D., St. Thomas's Rectory, Haverfordwest.
- 1898 HILL, CHARLES WILSON, Esq. (address not known).
- 1893 HILL, GEORGE FRANCIS, Esq., M.A., F.B.A., *Keeper of Coins*, British Museum, W.C. 1.
- 1898 HOCKING, WILLIAM JOHN, Esq., C.B.E., Royal Mint, E. 1.
- 1895 HODGE, THOMAS, Esq., Fyning House, Rogate, Petersfield, Hants.
- 1910 †HOWORTH, DANIEL F., Esq., 24 Villiers Street, Ashton-under-Lyne.
- 1878 HOWORTH, SIR HENRY H., K.C.I.E., D.C.L., F.R.S., F.S.A., 45 Lexham Gardens, W. 8, *Vice-President*.
- 1883 HUBBARD, WALTER R., Esq., 6 Broomhill Avenue, Partick, Glasgow.
- 1885 HÜGEL, BARON F. VON, 13 Vicarage Gate, Kensington, W. 8.
- 1908 *HUNTINGTON, ARCHER M., Esq., Honorary President of the American Numismatic Society, Audubon Park, 156th Street, West of Broadway, New York, U.S.A.
- 1911 HYMAN, COLEMAN P., Esq., Royal Colonial Institute, Northumberland Avenue, W.C. 2.
- 1911 JOHNSTON, LEONARD P., Esq., The Cottage, Warningcamp, Arundel, Sussex.
- 1911 JONES, FREDERICK WILLIAM, Esq., 22 Ramshill Road, Scarborough.
- 1874 *KENYON, R. LLOYD, Esq., M.A., J.P., D.L., Pradoc, West Felton, Salop.
- 1914 KERR, ROBERT, Esq., M.A., Royal Scottish Museum, Edinburgh.
- 1901 KOZMINSKY, DR. ISIDORE, 20 Queen Street, Kew, near Melbourne, Victoria.
- 1883 *LAGERBERG, M. ADAM MAGNUS EMANUEL, Chamberlain of H.M. the King of Sweden, Director of the Numismatic Department, Museum, Gothenburg and Rada, Sweden.
- 1917 LAMB, MISS WINIFRED, Holly Lodge, Campden Hill, W. 8.

ELECTED

- 1910 LAUGHLIN, DR. W. A., M.A., Box 456, Virginia City, Nevada, U.S.A.
- 1877 LAWRENCE, F. G., Esq., Birchfield, Mulgrave Road, Sutton, Surrey.
- 1885 *LAWRENCE, L. A., Esq., F.S.A., 44 Belsize Square, N.W. 3.
- 1883 *LAWRENCE, RICHARD HOE, Esq., 15 Wall Street, New York, U.S.A.
- 1871 *LAWSON, ALFRED J., Esq., Smyrna.
- 1893 LESLIE-ELLIS, LIEUT.-COL. HENRY, D.L., J.P., F.S.A., F.R.G.S., Magherymore, Wicklow.
- 1918 LEVIS, HOWARD COPPUCK, Esq., F.S.A., 40 Egerton Gardens, S.W. 3.
- 1900 LINCOLN, FREDERICK W., Esq., 69 New Oxford Street, W.C. 1.
- 1907 LOCKETT, RICHARD CYRIL, Esq., F.S.A., J.P., Clonterbrook, St. Anne's Road, Aigburth, Liverpool.
- 1911 LONGMAN, W., Esq., 27 Norfolk Square, W. 2.
- 1893 LUND, H. M., Esq., Waitara, Taranaki, New Zealand.
- 1903 LYDDON, FREDERICK STICKLAND, Esq., 5 Beaufort Road, Clifton, Bristol.
- 1885 *LYELL, ARTHUR HENRY, Esq., F.S.A., 9 Cranley Gardens, S.W. 7.
- 1895 MACDONALD, GEORGE, Esq., C.B., M.A., LL.D., F.B.A., 17 Learmonth Gardens, Edinburgh.
- 1901 MACFADYEN, FRANK E., Esq., 11 Sanderson Road, Jesmond, Newcastle-on-Tyne.
- 1917 MABO, CAPT. C. L. V., 26 Collingham Gardens, S.W. 5.
- 1895 MARSH, WM. E., Esq., Rosendale, 35 Holligrave Road, Bromley, Kent.
- 1897 MASSY, COL. W. J., 30 Brandenburg Road, Chiswick, W. 4.
- 1912 MATTINGLY, HAROLD, Esq., M.A., British Museum, W.C. 1.
- 1905 MAYROGORDATO, J., Esq., 6 Palmeira Court, Hove, Sussex.
- 1901 McDOWALL, REV. STEWART A., 5 Kingsgate Street, Winchester.
- 1905 McEWEN, HUGH DRUMMOND, Esq., F.S.A.(Scot.), Custom House, Leith, N.B.
- *1868 McLACHLAN, R. W., Esq., 310 Lansdowne Avenue, Westmount, Montreal, Canada.
- 1916 MEIGH, ALFRED, Esq., Ash Hall, Bucknall, Stoke-on-Trent.
- 1905 MESSENGER, LEOPOLD G. P., Esq., 151 Brecknock Road, Tufnell Park, N. 19.

ELECTED

- 1905 MILLER, HENRY CLAY, Esq., 35 Broad Street, New York, U.S.A.
- 1897 MILNE, J. GRAFTON, Esq., M.A., Bankside, Goldhill, Farnham, Surrey.
- 1910 MITCHELL LIBRARY, THE, Glasgow, F. T. Barrett, Esq., Librarian.
- 1898 *MONCKTON, HORACE W., Esq., F.I.S., F.G.S., 3 Harcourt Buildings, Temple, E.C. 4, and Whitecairn, Wellington College Station, Berks.
- 1888 MONTAGUE, LIEUT.-COL. L. A. D., Penton, near Crediton, Devon.
- 1919 MONTGOMERY, MISS LAURA H., Huntingdon, 76 Pope's Grove, Twickenham.
- 1905 MOORE, WILLIAM HENRY, Esq. (address not known).
- 1879 MORRISON, LIEUT.-COL. H. WALTERS, R.A., F.S.A., 42 Beaufort Gardens, S.W. 3, *Hon. Secretary*.
- 1904 MOULD, RICHARD W., Esq., Newington Public Library, Walworth Road, S.E. 17.
- 1916 MYLNE, EVERARD, Esq., Colet House, Rhyl, N. Wales.
- 1900 *MYLNE, REV. ROBERT SCOTT, M.A., B.C.L., F.S.A., F.R.S.E., Great Amwell, Herts.
- 1909 NAGG, STEPHEN K., Esq., 1621 Master Street, Philadelphia, U.S.A.
- 1905 NATHAN, SIDNEY, Esq., M.D., 11 Bolton Gardens, S.W. 10.
- 1910 NESMITH, THOMAS, Esq., c/o J. Munro & Co., 7 Rue Scribe, Paris.
- 1905 NEWALL, PROF. HUGH FRANK, M.A., D.Sc., F.R.S., Madingley Rise, Cambridge.
- 1906 NEWBERRY LIBRARY, Chicago, U.S.A.
- 1905 *NEWELL, E. T., Esq., President of the American Numismatic Society, 156th Street, West of Broadway, New York, U.S.A.
- 1898 OGDEN, W. SHARP, Esq., F.S.A., Naseby, East End Road, Finchley, N. 3.
- 1916 OGLE, CHRISTOPHER, Esq., M.A., Austin Friars House, Austin Friars, E.C. 3.
- 1897 *O'HAGAN, HENRY OSBORNE, Esq., Riverhome, Hampton Court.
- 1882 OMAN, PROF. C. W. C., M.P., M.A., LL.D., F.S.A., F.B.A., All Souls College, Oxford, *President*.

ELECTED

- 1911 OPPENHEIMER, HENRY, Esq., F.S.A., 9 Kensington Palace Gardens, W. 8.
- 1919 PALMER, C. E. S., Esq., 45 Twyford Avenue, Acton, W. 3.
- 1903 PARSONS, H. ALEXANDER, Esq., "Shaftesbury," Devonshire Road, Honor Oak Park, S.E. 23.
- 1882 +*PECKOVER OF WISBECH, LORD, LL.D., F.S.A., F.L.S., F.R.G.S., J.P., Bank House, Wisbech.
- 1915 PEARs, LT.-COL. G.B., R.E., c/o Cox & Co., Charing Cross, S.W.1.
- 1896 PEERS, C. R., Esq., M.A., F.S.A., 14 Lansdowne Road, Wimbledon, S.W. 19.
- 1894 PERRY, HENRY, Esq., Middleton, Plaistow Lane, Bromley, Kent.
- 1909 PETERSON, F. W. VOYSEY, Esq., B.C.S. (retd.), 38 Bassett Road, W. 10.
- 1917 PHIPPS, LIEUT.-COL. P. RAMSAY, F.R.G.S., 17 St. James's Court, S.W. 1.
- 1888 PINCHES, JOHN HARVEY, Esq., Whitehill Cottage, Meopham, Kent.
- 1910 PORTER, PROFESSOR HARVEY, Protestant College, Beirut, Syria.
- 1915 POYSER, A. W., Esq., M.A., Grammar School, Wisbech.
- 1903 PRICE, HARRY, Esq., Arun Bank, Pulborough, Sussex.
- 1911 PRICHARD, A. H. COOPER, Esq., British School, Palazzo Odessulchi, Rome.
- 1919 PRASADA, R., Esq., A.C.I., Shiva Nivas, Mozang, Lahore, India.
- 1906 RADFORD, A. J. VOUGHT, Esq., F.S.A., Vacye, College Road, Malvern.
- 1918 RAFFIN, ALAIN, Esq., 67 Eardley Crescent, S.W. 5.
- 1913 RAO, K. ANANTASAMI, Curator of the Government Museum, Bangalore, India.
- 1890 RAPSON, PROF. E. J., M.A., M.R.A.S., 8 Mortimer Road, Cambridge.
- 1905 RASHLEIGH, EVELYN W., Esq., Stoketon, Saltash, Cornwall.
- 1915 RASQUIN, M. GEORGES, Tanglewood, Bushey Park, Herts.
- 1909 RAYMOND, WAYTE, Esq., South Norwalk, Connecticut, U.S.A.
- 1903 REGAN, W. H., Esq., 124 Queen's Road, Bayswater, W. 2.
- 1876 *ROBERTSON, J. DRUMMOND, Esq., M.A., 65 Ladbroke Grove, Notting Hill, W. 11.
- 1911 ROBINSON, E. S. G., Esq., B.A., British Museum, W.C. 1.
- 1910 ROGERS, REV. EDGAR, M.A., 5 Essex Villas, W. 8.
- 1919 ROSE, EDWARD E. PILKINGTON, Esq., I.C.S., Loughton, Essex.

ELECTED

- 1911 ROSENHEIM, MAURICE, Esq., 18 Belsize Park Gardens, N.W. 3.
- 1903 RUBEN, PAUL, Esq., Ph.D., Alte Rabenstrasse, 8, Hamburg, Germany.
- 1904 RUSTAFFJAEEL, ROBERT DE, Esq., The Union Trust Co., Fifth Avenue, Sixtieth Street, New York, U.S.A.
- 1919 RYAN, V. J. E., Esq., Thomaston Park, Birr, King's County, Ireland.
- 1916 SAINT LOUIS NUMISMATIC SOCIETY, 4365 Lindell Boulevard, St. Louis, Mo., U.S.A.
- 1872 *SALAS, MIGUEL T., Esq., 247 Florida Street, Buenos Ayres.
- 1916 *SALISBURY, F. S., Esq., M.A., Limbrick Hall, Harpenden, Herts.
- 1877 *SANDEMAN, LIEUT.-COL. JOHN GLAS, M.V.O., F.S.A., Whin-Hurst, Hayling Island, Havant, Hants.
- 1919 SAVAGE, W. LISLE, Esq., 14 Mill Street, Maidstone, Kent.
- 1917 SEABY, B. A., Esq., 10 Allison Grove, S.E. 21.
- 1907 *SELTMAN, CHARLES T., Esq., 24 Fulbroke Road, Cambridge.
- 1890 SELTMAN, E. J., Esq., Kinghoe, Berkhamsted, Herts.
- 1900 SHACKLES, GEORGE L., Esq., Wickersley, Brough, E. Yorks.
- 1908 SHEPHERD, EDWARD, Esq., 2 Cornwall Road, W. 11.
- 1913 SHIRLEY-FOX, J. S., Esq., R.B.A., Kingsbury Mill House, Marlborough, Wilts.
- 1896 SIMPSON, C. E., Esq. (address not known).
- 1893 *SIMS, BRIG.-GENERAL R. F. MAXLEY, C.M.G., D.S.O., 163 Strand, W.C. 2.
- 1896 SINHA, KUMYAR KUSHAL PAL, RAIS OF KOTLA, Kotla, Agra, India.
- 1918 *SLIGO, THE MARQUESS OF, F.S.A., F.R.G.S., 7 Upper Belgrave Street, S.W. 1.
- 1912 SMITH, G. HAMILTON, Esq., Northside, Leigh Woods, Bristol.
- 1890 SMITH, W. BERESFORD, Esq., Kenmore, Vanbrugh Park Road West, Blackheath, S.E. 3.
- 1905 SNELLING, EDWARD, Esq., 26 Silver Street, E.C. 2.
- 1909 SOUTZO, M. MICHEL, 8 Strada Romana, Bucharest.
- 1894 SPINK, SAMUEL M., Esq., 17 Piccadilly, W. 1.
- 1902 STAINER, CHARLES LEWIS, Esq., Woodhouse, Iffley, Oxford.
- 1869 *STREATFEILD, REV. GEORGE SYDNEY, 12 Upper Lattimore Road, St. Albans.
- 1914 *STREATFEILD, MRS. SYDNEY, 22 Park Street, W. 1.

ELECTED

- 1910 SUTCLIFFE, ROBERT, Esq., 21 Market Street, Burnley, Lanca.
- 1914 SYDENHAM, REV. EDWARD A., M.A., The Vicarage, Wolvercote, Oxon.
- 1885 SYMONDS, HENRY, Esq., F.S.A., Staplegrove Elm, Taunton.
- 1896 *TAPPS, H. W., Esq., 35 Greenholm Road, Eltham, S.E. 9.
- 1879 TALBOT, LIEUT.-COL. THE HON. MILO GEORGE, Hartham Park, Corsham, Wilts.
- 1919 TARAPOREVALA, VICAJI D. B., Esq., 103 Meadows St., Fort, Bombay.
- 1892 *TAYLOR, R. WRIGHT, Esq., M.A., LL.B., F.S.A., 8 Stone Buildings, Lincoln's Inn, W.C. 2.
- 1917 TAYLOR, GLEN A., Esq., Middleton House, Briton Ferry, Glamorgan.
- 1887 THAINLWALL, F. J., Esq., 12 Upper Park Road, N.W. 3.
- 1890 THOMAS-STANFORD, CHARLES, Esq., M.P., M.A., F.S.A., Preston Manor, Brighton.
- 1896 THOMPSON, SIR HERBERT, BART., 9 Kensington Park Gardens, W. 11.
- 1918 THORBURN, PHILIP, Esq., Hascombe, Godalming, Surrey.
- 1903 THORPE, GODFREY F., Esq., United Service Club, Calcutta, India.
- 1894 TRIGGS, A. B., Esq., Bank of New South Wales, Yass, New South Wales.
- 1887 †TROTTER, LIEUT.-COL. SIR HENRY, K.C.M.G., C.B., 18 Eaton Place, S.W. 1.
- 1912 VAN BUREN, DR. A. W., American Academy, Porta San Pancrazio, Rome.
- 1916 VANES, REV. J. A., 1 Trinity Road, Bangalore, India.
- 1899 VLASTO, MICHEL P., Esq., 12 Allée des Capucines, Marseilles, France.
- 1892 VOST, LIEUT.-COL. W., I.M.S., 216 Staff Lines, Secunderabad, India.
- 1905 WACE, A. J. B., Esq., M.A., Leslie Lodge, Hall Place, St. Albans.
- 1883 WALKER, R. K., Esq., M.A., J.P., Watergate, Meath Road, Bray, Ireland.
- 1897 WALTERS, FRED. A., Esq., F.S.A., 28 Great Ormonde Street, W.C. 1, and St. Mildred's, Temple Ewell, Dover.
- 1911 WARRE, MAJOR FELIX W., O.B.E., M.C., 128 Church Street, W. 8.

ELECTED

- 1901 *WATTERS, CHARLES A., Esq., 152 Princes Road, Liverpool.
- 1917 WATTS, GERALD A., Esq., Drumlerry, Londonderry.
- 1901 WEBB, PERCY H., Esq., 4 and 5 West Smithfield, E.C. 1, *Hon-Treasurer*.
- 1885 *WERER, F. PARKES, Esq., M.D., F.S.A., 13 Harley Street, W. 1.
- 1884 †WEBSTER, W. J., Esq., 76 Melford Road, Thornton Heath.
- 1904 WEIGHT, WILLIAM CHARLES, Esq., Erica, The Broadway, Letchworth.
- 1905 WEIGHTMAN, FLEET-SURGEON A. E., F.S.A., O.B.E., Junior United Service Club, Charles Street, St. James's, S.W. 1.
- 1899 WELCH, FRANCIS BERTRAM, Esq., M.A., Wadham House, Arthog Road, Hale, Cheshire.
- 1915 WHITEHEAD, R. B., Esq., I.C.S., M.R.A.S., Amballa, Panjab, India.
- 1869 *WIGRAM, MRS. LEWIS, The Rookery, Frensham, Surrey.
- 1908 WILLIAMS, T. HENRY, Esq., 85 Clarendon Road, S.W. 15.
- 1910 WILLIAMS, W. I., Esq., Beech Villa, Nelson, Cardiff.
- 1881 WILLIAMSON, GEO. C., Esq., F.R.S.L., Burgh House, Well Walk, Hampstead, N.W. 3.
- 1906 WILLIAMSON, CAPT. W. H. (address not known).
- 1904 WINTER, CHARLES, Esq., Oldfield, Thetford Road, New Malden, Surrey.
- 1906 WOOD, HOWLAND, Esq., Curator of the American Numismatic Society, 156th Street, W. of Broadway, New York, U.S.A.
- 1903 WRIGHT, H. NELSON, Esq., I.C.S., M.R.A.S., Bareilly, United Provinces, India.
- 1889 YEATES, F. WILLSON, Esq., 28 Dawson Place, W. 2.
- 1880 YOUNG, ARTHUR W., Esq., 12 Hyde Park Terrace, W. 2.
- 1898 YOUNG, JAMES SHELTON, Esq., Great Camberton, Pershore, Worcestershire.
- 1919 ZIEGLER, PHILIP, Esq., Lilly Villa, Victoria Park, Manchester.
- 1900 ZIMMERMANN, REV. JEREMIAH, M.A., D.D., LL.D., 107 South Avenue, Syracuse, New York, U.S.A.

HONORARY FELLOWS

ELECTED

- 1898 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY,
Palazzo Quirinale, Rome.
- 1891 BABELON, M. ERNEST, Membre de l'Institut, Bibliothèque
Nationale, Paris.
- 1903 BAHRFELDT, GENERAL DER INFANTERIE M. VON, D.Phil.,
9 Humboldtstr., Hildesheim, Germany.
- 1898 BLANCHET, M. ADRIEN, Membre de l'Institut, 10 Bd.
Émile Augier, Paris XVI.
- 1898 DRESSSEL, DR. H., Münzkabinett, Kaiser-Friedrich-Museum,
Berlin.
- 1899 GABRICI, PROF. DR. ETTORE, S. Giuseppe dei Nodi 75, Naples.
- 1898 †GNECCHI, COMM. FRANCESCO, Via Filodrammatici 10, Milan.
- 1873 IMHOOF-BLUMER, DR. F., Winterthur, Switzerland.
- 1893 JONGHE, M. LE VICOMTE B. DE, Rue du Trône, 60, Brussels.
- 1878 KENNER, DR. F. VON, K. u. K. Museen, Vienna.
- 1904 KUBITSCHKE, PROF. J. W., Fichlergasse, 1, Vienna.
- 1893 LOHRBECKE, HERR A., Cellerstrasse, 1, Brunswick.
- 1904 MAURICE, M. JULES, 15 Rue Vaneau, Paris VII.
- 1899 PICK, DR. BEHRENDT, Münzkabinett, Gotha.
- 1895 REINACH, M. THÉODORE, 9 Rue Hamelin, Paris.
- 1891 SVORONOS, M. JEAN N., Conservateur du Cabinet des Médailles,
Athens.
-

MEDALLISTS

OF THE ROYAL NUMISMATIC SOCIETY

ELECTED

- 1883 CHARLES ROACH SMITH, Esq., F.S.A.
 1884 AQUILA SMITH, Esq., M.D., M.R.I.A.
 1885 EDWARD THOMAS, Esq., F.R.S.
 1886 MAJOR-GENERAL ALEXANDER CUNNINGHAM, C.S.I., C.I.E.
 1887 JOHN EVANS, Esq., D.C.L., LL.D., F.R.S., P.S.A.
 1888 DR. F. IMHOOF-BLUMER, Winterthur.
 1889 PROFESSOR PERCY GARDNER, Litt.D., F.S.A.
 1890 MONSIEUR J. P. SIX, Amsterdam.
 1891 DR. C. LUDWIG MÜLLER, Copenhagen.
 1892 PROFESSOR R. STUART POOLE, LL.D.
 1893 MONSIEUR W. H. WADDINGTON, Sénateur, Membre de
 l'Institut, Paris.
 1894 CHARLES FRANCIS KEARY, Esq., M.A., F.S.A.
 1895 PROFESSOR DR. THEODOR MOMMSEN, Berlin.
 1896 FREDERIC W. MADDEN, Esq., M.R.A.S.
 1897 DR. ALFRED VON SALLET, Berlin.
 1898 THE REV. CANON W. GREENWELL, M.A., F.R.S., F.S.A.
 1899 MONSIEUR ERNEST BABELON, Membre de l'Institut, Con-
 servateur des Médailles, Paris.
 1900 PROFESSOR STANLEY LANE-POOLE, M.A., Litt.D.
 1901 S. E. BARON WLADIMIR VON TIESSENHAUSEN, St. Petersburg.
 1902 ARTHUR J. EVANS, Esq., M.A., F.R.S., F.S.A.
 1903 MONSIEUR GUSTAVE SCHLUMBERGER, Membre de l'Institut,
 Paris.
 1904 HIS MAJESTY VICTOR EMMANUEL III, KING OF ITALY.
 1905 SIR HERMANN WEBER, M.D.
 1906 COMM. FRANCESCO GNECCHI, Milan.
 1907 BARCLAY VINCENT HEAD, Esq., D.Litt., D.C.L., Ph.D., Corr.
 de l'Inst.
 1908 PROFESSOR DR. HEINRICH DRESSSEL, Berlin.
 1909 HERBERT A. GRUEBER, Esq., F.S.A.
 1910 DR. FRIEDRICH EDLER VON KENNER, Vienna.
 1911 OLIVER CODRINGTON, Esq., M.D., M.R.A.S., F.S.A.
 1912 GENERAL-LEUTNANT MAX VON BAHRFELDT, Hildesheim.
 1913 GEORGE MACDONALD, Esq., M.A., LL.D.
 1914 JEAN N. SVORONOS, Athens.
 1915 GEORGE FRANCIS HILL, Esq., M.A.
 1916 M. THÉODORE REINACH, Membre de l'Institut, Paris.
 1917 L. A. LAWRENCE, Esq., F.S.A.
 1918. Not awarded.
 1919 M. ADRIEN BLANCHET, Membre de l'Institut, Paris.

PROCEEDINGS
OF THE
ROYAL NUMISMATIC SOCIETY.

PROCEEDINGS OF THE ROYAL NUMISMATIC SOCIETY.

SESSION 1918—1919.

OCTOBER 17, 1918.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., &c., Vice-President, in the Chair.

The Minutes of the Meeting of May 16 were read and approved.

Messrs. Howard Coppuck Levis and Philip Thorburn were proposed for election.

The following Presents received since the May Meeting were announced, laid upon the table, and thanks ordered to be sent to their donors :

1. American Journal of Archaeology, 1918, Pts. 3 and 4.
2. Bulletin de la Société des Antiquaires de l'Ouest, 1917, Pts. 3 and 4, and Pt. 1, 1918.
3. Journal of Hellenic Studies, Vol. xxxviii.
4. Proceedings of the Society of Antiquaries of London, Vol. xxix.
5. W. L. Craig. Sterling Decimal Coinage; *from the Author.*
6. Walter Dennison: A Gold Treasure of the last Roman Period; *from the University of Michigan.*
7. J. Grafton Milne: The Alexandrian Coinage of the Eighth Year of Gallienus; *from the Author.*

8. F. Parkes Weber: *Aspects of Death and correlated Aspects of Life.* 3rd ed.; *from the Author.*

Mr. Percy H. Webb showed a series of Roman third brass, in very fine condition, of Aurelian (3), Severina (1), Tacitus (2), Probus (24), and Carus (1), also a quinarius of Probus, all unpublished by Cohen.

Mr. Leopold G. P. Messenger exhibited a silver Muhamadan pilgrim's medal from Baghdad.

Professor Oman showed German local notes of Bielefeld and Oberlahnstein withdrawn by order of the Government because of the frivolousness of their types and their allusions to war food.

Miss Helen Farquhar showed specimens of Briot's pattern crowns (Snelling, *Patterns*, Pl. vi. 7) in gold and silver, the former being the only known specimen, the property of Mr. T. B. Clarke-Thornhill, the latter her own, of which several specimens are known.

Mr. F. A. Walters showed two pennies of the light coinage of Henry VI struck from altered dies of Edward IV, viz.:

1. *London.* Obv. M.m. short cross fitchée hEƆRRIQ (over EƆDWƆRD) DI GRƆ RƆX ƆRGL. Rev. CIVITAS LONDON.
2. *York.* Obv. M.m. lys hEƆRRIQ (over EƆDWƆRD) DI GRƆ RƆX ƆRGL, G to left and key to right of bust. Rev. CIVITAS EBORƆQL. Quatrefoil in centre of cross. From the Brice, Montague, and Roth Collections.

Lieut.-Col. H. Walters Morrieson showed eleven coins of Henry VII, from the shilling to the farthing.

Mr. L. A. Lawrence read the first part of his paper on the "Coinage of Henry VII". (See *Numismatic Chronicle*, Vol. xviii (1918), pp. 205-61.)

NOVEMBER 21, 1918.

PROFESSOR C. OMAN, M.A., LL.D., F.S.A., F.B.A.,
Vice-President, in the Chair.

The Minutes of the Meeting of October 17 were read and approved.

Messrs. Philip Thorburn and Howard Coppuck Levis were elected Fellows of the Society and Colonel A. H. Coles was proposed for election.

The following Presents to the Society were announced, laid upon the table, and thanks ordered to be sent to the donors :

1. American Journal of Archaeology, Vol. xxii, Pt. 3.
2. Annual Report of the Deputy Master of the Mint for 1916.
3. Mémoires de la Société des Antiquaires du Nord, 1914, 1915, 1916, 1917.
4. Nordiska Fortidsminder, Pts. 1 & 2.
5. Proceedings of the Royal Irish Academy, Vol. xxxiv, Pts. 8 and 9 ; Vol. xxxv, Pt. 1.

Mr. Leopold G. P. Messenger showed a brass medalet struck to commemorate the entry of the Allies into Paris in 1814.

Mr. Frederick A. Walters showed a penny of Matilda : *Obv.* :MATILDIS [IMPE]. Bust to right with sceptre. *Rev.* SE[MI]ER CA ; probably for Colne, as Canterbury was never in the hands of the Empress. From the Nottingham find and Roth Collection, and remarkable for the complete reading of the name and the feminine type of portrait.

Mr. Henry Garside showed a British copper twopence of 1797 countermarked G in four places for Guadeloupe.

Mr. L. A. Lawrence read the concluding portion of his paper on the "Coinage of Henry VII", which is printed in the *Chronicle*, Vol. xviii (1918), pp. 205-61.

DECEMBER 19, 1918.

SIR HENRY H. HOWORTH, K.C.I.E., F.R.S., &c., Vice-President, in the Chair.

The Minutes of the Meeting of November 21 were read and approved.

Colonel A. H. Coles, C.M.G., D.S.O., was elected a Fellow of the Society, and Mr. Philip Ziegler was proposed for election.

The following Presents to the Society were announced, laid upon the table, and thanks ordered to be sent to the donors:

1. Administration Report of the Madras Museum, 1918-1919.

2. Annual Report of the United States National Museum, 1917.

3. Bulletin de la Société des Antiquaires de l'Ouest, Vol. iv, No. 2.

4. Journal of the Royal Society of Antiquaries of Ireland, Vol. xlviii, Pt. 7.

Mr. Henry Garside showed a Spanish piece of two reals dated 1782 and countermarked with a crown and **G. R.** in an octagon for St. Kitts.

Mr. H. Mattingly showed a number of early Imperial coins from Mr. Lawrence's collection in illustration of his paper.

Mr. H. Mattingly read a paper on the "Mints of the Early Empire". The main object of the paper was to show how the rights of coinage were apportioned between Emperor and Senate, and to demonstrate the inaccuracy of Mommsen's theory as hitherto accepted; to prove that for a time, from 14 B.C. to A.D. 37, Lugdunum, not Rome, was the Imperial Mint, and that, in the whole question of coinage, Augustus showed scrupulous regard for conservative sentiment and preferred to strike as "imperator" in the provinces rather

than by special grant of power in Rome itself. The relations of the mints of Rome and Lugdunum from A. D. 37 onwards, the significance of the **EX S.C.** on the reverses of the early coins of Nero, and the history of the temporary mints that were at work in the period following on Nero's death were also considered. The paper was followed by a discussion in which the Chairman, Professor Oman Mr. P. H. Webb, and Mr. F. A. Walters took part.

JANUARY 16, 1919.

SIR ARTHUR EVANS, P.S.A., LL.D., F.R.S., F.B.A., &c.,
President, in the Chair.

The Minutes of the Meeting of December 13 were read and approved.

The following Present to the Society was announced, laid upon the table, and thanks were ordered to be sent to the donor:

The British Numismatic Journal, Vol. xii, 1915 ; *presented by Miss Helen Farquhar.*

Mr. Philip Ziegler was elected a Fellow of the Society ; Miss Laura H. Montgomery, Lieut.-Col. Oscar F. Boulton, Lieut. C. E. S. Palmer, Messrs. J. D. Beazley, H. H. E. Craster, and R. Prasada were proposed for election.

Mr. G. F. Hill read a paper in which he described Greek coins acquired by the British Museum in 1917 and 1918. The acquisitions were unusually numerous, owing to the bequests by the late Mr. Gorman Ford and the late Rev. E. S. Dewick and the donation of a large number of coins by Sir Evelyn Grant Duff. (This paper is printed in this volume of the *Numismatic Chronicle*, 1919 (xix), pp. 1-16.)

FEBRUARY 20, 1919.

SIR ARTHUR EVANS, P.S.A., F.R.S., LL.D., F.B.A., &c.,
President, in the Chair.

The Minutes of the Meeting of January 16 were read and approved.

The following Presents to the Society were announced, laid upon the table, and thanks ordered to be sent to the donors:

1. American Journal of Archaeology, Vol. xxii, Pt. 4.
2. Archaeologia Cantiana, Vol. xxxiii.
3. Bulletin de la Société des Antiquaires de l'Ouest, 1918, Pt. 2.
4. The Seleucid Mint of Antioch, by E. T. Newell; *from the Author*.

Miss Laura H. Montgomery, Lieut.-Col. Oscar F. Boulton, Lieut. C. E. S. Palmer, R.N.V.R., Messrs. J. D. Beazley, H. H. E. Craster, and R. Prasada were elected Fellows of the Society.

Mr. Hugh Goodacre showed a bronze coin of Fausta with the head of Helena.

Mr. J. H. Pinches exhibited four card-counter portraits of the Royal Family, engraved by G. M. de Saulles.

Professor Oman showed a specimen in silver of the Oxford Millenary Medal of 1912.

Mr. H. Mattingly read a paper on "Some Problems in Third Century Numismatics". The reader began by indicating the general character of the evidence available and by criticizing the "Historia Augusta" and some modern criticisms of the same. He then proceeded to raise some particular problems and suggest some possible solutions. He particularly advocated a closer detailed study of the coins of the period from Caracalla to Gallienus than has yet been made, and, adopting the theory of the decline of the silver denarius to the grade of a base metal coin,

attempted to find in this hypothesis the explanation of the reforms of Aurelian and Diocletian and of the marks **XX**, **XXI** on his billon coins. He also protested vigorously against the view that the silvered copper of that period can possibly have represented anything like the tariff value of the coins.

Mr. Percy H. Webb, discussing the paper, was unwilling to admit the great decline in the value of the denarius. Sir Henry Howorth pointed out that there was evidence of a great dearth of silver in this period. Sir Arthur Evans, discussing the question of silver, showed that the Romans appear to have relied largely on Britain for silver, and when they were cut off from it their silver coinage diminished greatly.

MARCH 20, 1919.

Sir HENRY H. HOWORTH, K.C.I.E., F.R.S., &c., Vice-President, in the Chair.

The Minutes of the Meeting of February 20 were read and approved.

The following Presents to the Society were announced, laid upon the table, and thanks ordered to be sent to the donors:

1. Aarbøgen for Nordisk Oldkyndighed og Historie, 1917.
2. Forvännen, 1916; *from the Stockholm Academy.*

Major V. J. E. Ryan, Messrs. E. E. Pilkington Rose and D. Arthur Colegate were proposed for election.

Mr. Percy H. Webb exhibited specimens from a find of Roman coins of the fourth century, from Luxor, on which he read the following note:—

“An officer recently returned from Egypt brought home twenty-one third brass, part of a considerable number found at Luxor a short time since. The coins were still stuck together when he

first saw them and were covered with a rough deposit of a bright green colour. On attempting to break them apart, it was found that considerable portions of them 'flaked' off and adhered to other coins. In some cases coins actually divided into two pieces as if sliced from rim to rim and showed the obverse and reverse of the coin on one side and a blank surface on the other. In other cases a considerable portion came off in so thin a layer that the type of one coin was visible as if incuse on the surface of another. A specimen is exhibited in which the head and part of the inscription 'Urbs Roma' is to be seen as incuse on a coin of Constans. The coins cleaned easily down to a fairly smooth green patinated surface. The earliest of those brought home was of Constantine I, *Soli Invicto Comiti*: the latest, *Securitas Reipublicae* of Valentinian I. The most interesting piece is an *Urbs Roma* of Thessalonica on an unusually large and thick flan bearing a male portrait, presumably of Mars, in place of the usual female bust. It is exhibited."

The Rev. Edgar Rogers showed a series of silver and bronze coins of Antiochus IX of Syria and a drachm of Alexander Bala of Tyre, dated A.S. 166.

Professor Oman showed a series of coins in illustration of his paper.

Professor Oman read a paper on the coinage of Antiochus IX Cyzicenus, with special reference to the iconography.

Mr. Rogers and Sir Henry Howorth also spoke.

APRIL 24, 1919.

SIR ARTHUR EVANS, P.S.A., F.R.S., F.B.A., &c.,
President, in the Chair.

The Minutes of the Meeting of March 20 were read and approved.

The following Presents to the Society were announced and laid upon the table, and thanks ordered to be sent to the donors:

1. Christian IV's *Møntpolitik*, 1588-1625, by J. Willeke;
from the Author.

2. Proceedings of the Cambridge Antiquarian Society, No. lxi.

3. Royal Charities, Pt. 1. By Miss Helen Farquhar ; *from the Author.*

4. Decimal Coinage.

5. Industrial Reconstruction and the Metric System. By H. Alcock ; *from the Decimal Association.*

Major V. J. E. Ryan and Messrs. D. Arthur Colegate and E. E. Pilkington Rose were elected Fellows of the Society. Sir John W. Cawston, K.C.B., Messrs. G. C. Drabble and W. Lisle Savage were proposed for election.

The Rev. A. W. Hands exhibited a denarius of Carausius found in the Cotswolds. *Obv.* IMP. CARAVSIVS AVG. *Bust r.* *Rev.* Clasped hands CONCORIA (*sic*) : R.S.R. (wt. 55.5 grs.). The legend CONCORDIA alone was not previously known on the silver coins of Carausius.

Professor Oman exhibited debased Antoniniani of Victorinus, Tetricus I and II, Aurelian, Tacitus, Florianus, Probus, Carus, all apparently silver rather than silver washed.

Sir Arthur Evans exhibited an aureus of Aurelian with an exceptionally fine portrait. *Obv.* IMP C DOM AVRELIANVS AVG. *Bust l.* *Rev.* FIDES MILITVM, Fides holding standard in each hand.

Mr. F. A. Walters showed a silver fourth-century drachm of Athens with an unpublished symbol, head of Medusa.

Mr. L. A. Lawrence showed a denarius, apparently a mule between M. Aurelius and Lucius Verus. *Obv.* IMP L VERVVS AVG. *Bust of Lucius r.* *Rev.* Providentia standing l. PROV DEOR TRP XVII COSIII, a date of the reign of M. Aurelius.

Professor Oman showed a 25-pfennig note of Niederlahnstein with the satirical type of an aged and feeble food controller armed with a quill pen represented as helpless against the food-hoarder, and a 50-pfennig note of Aunsbach with type, the Devil carrying off a food-hoarder to hell.

Mr. Webb exhibited a fine series of coins of the third century in illustration of his paper.

Mr. Percy H. Webb read a paper on the "Reform of the Coinage by Aurelian". The evidence of the coins was against Homo's theory of two reforms, one in 271 and the other in 274, and none of the historians suggests two reforms. The historical references are inconsistent with a view that the reform of the mint involved any alteration in the monetary system. The coins themselves show a great improvement in size, style, and alloy. They fall into two classes and a small class of transitional pieces. The first class closely resembles the coinage of Claudius Gothicus; then follows a small second, transitional, series of better workmanship. The third class shows a great improvement and marks the completion of the reform. They always bear a radiate bust or bust on a crescent. The modern practice of mint-marking was very irregularly employed till the reform of Aurelian, who developed the system, which enabled coins to be traced to the officers responsible for their issue and thus checked previous fraudulent practices.

Mr. Webb discussed the XX and XXI coins and the inscription VSV. He held the view that both XX and XXI indicated XX, equal to the same unit. He suggested Aurelian's improved coins were Antoniniani of twenty to the aureus. His reforms on the whole seem to have been a restoration of the old system rather than the introduction of a new one.

Mr. Mattingly expressed his agreement with many of Mr. Webb's conclusions, but insisted on the necessity of taking the "denarius communis" of the edict of Diocletian seriously into account in any consideration of the coinage of the preceding period. He pointed out the apparent connexion between the reforms of Diocletian and Aurelian, as seen, for instance, in the XX, XXI on the coins, and urged the advantages of an explanation that would cover both. Professor Oman made the suggestion that the decline of the denarius was mainly due to the flooding of the market with gold by Diocletian.

Mr. Sydenham put forward very briefly a new theory of his own, which he proposed to expound more fully in a coming paper.

Sir Arthur Evans threw out a new suggestion in explanation of **VSV** on billon coin of Aurelian and Severus; **VSV** may be an abbreviation, comparable to **C. E. S. = *Cum Exercitu Suo***, on coins of Gallienus, and equals **V(OTA) S(OLVTA) V (QVINQVENNALIA)**.

MAY 15, 1919.

SIR ARTHUR EVANS, F.S.A., F.R.S., LL.D., &c.,
President, in the Chair.

The Minutes of the Meeting of April 24 were read and approved.

The following Presents to the Society were announced, laid upon the table, and thanks ordered to be sent to their donors:

1. *Archaeologia Aeliana*, Vol. xv.
2. *Proceedings of Society of Antiquaries of Scotland*, Vol. lli.
3. *Revue Belge de Numismatique*, 1914, Pt. 4.
4. *Rivista Italiana di Numismatica*, Series 2, Pts. 3 and 4, Vol. i.

Sir John W. Cawston, K.C.B., and Messrs. G. C. Drabble and W. Lisle Savage were elected Fellows of the Society. Mr. Vicaji D. P. Taraporevala was proposed for election.

The Rev. E. A. Sydenham exhibited a representative series of Roman coins in gold, silver, and bronze in illustration of his paper.

Messrs. Henry Garside and Leopold G. P. Messenger were appointed to audit the Treasurer's accounts.

In Part II of his paper on "The Roman Monetary System", Mr. Sydenham traced the changes and developments that occurred in the Augustan coinage down to the time of Gallienus. These changes are mainly of three kinds:

(1) the addition of new denominations or new forms of existing denominations; (2) the temporary or permanent discontinuance of certain denominations; and (3) the tendency towards depreciation by the reduction in the weight of the gold and bronze and by the increase of alloy in the silver. (This paper is printed in this volume of the *Chronicle*, xix (1919), pp. 114-71.)

Professor Oman, Mr. Webb, Mr. Mattingly, and Sir Arthur Evans took part in the discussion which followed.

JUNE 19, 1919.

ANNUAL GENERAL MEETING.

SIR ARTHUR EVANS, F.S.A., F.R.S., LL.D., &c.,
President, in the Chair.

The Minutes of the Annual General Meeting of June 20, 1918, were read and approved.

Messrs. Leopold Messenger and H. Alexander Parsons were appointed scrutineers of the Ballot for the election of office bearers for the following year.

Mr. Vicaji D. P. Taraporevala was elected a Fellow of the Society.

The following Report of the Council was laid before the Society:

"The Council have again the honour to lay before you their Annual Report on the state of the Royal Numismatic Society.

It is with deep regret that they have to announce the deaths of the following eight Fellows of the Society:

Sir Jonathan Backhouse,	The Ven. G. C. Hilbers, M.A.,
Bart.	V. D.
Edwin Freshfield, Esq., LL.D.,	Daniel Fowler Howorth, Esq.
F.S.A.	Marten Perry, Esq., M.D.
F. Bennett-Goldney, Esq.,	Henry W. Thorburn, Esq.
M.P., F.S.A.	Sir Hermann Weber, M.D.

They have also to announce the resignation of the following three Fellows :

Alfred C. Boyd, Esq.
Jethro A. Cossins, Esq.
R. H. Smith Hobart, Esq.

and of the Literary Society of Newcastle.

On the other hand, they have to announce the election of the following seventeen new Fellows :

Lieut.-Col. Oscar F. Boulton.	Miss Laura H. Montgomery.
J. D. Beazley, Esq., M.A.	Lieut. C. E. S. Palmer,
Sir John Westerman Cawston,	R.N.V.R.
K.C.B.	R. Prasada, Esq., A.C.I.
Colonel A. H. Coles, C.M.G.,	Edward E. Pilkington Rose,
D.S.O.	Esq., I.C.S.
D. Arthur Colegate, Esq.	Major V. J. E. Ryan.
H. H. E. Craster, Esq., M.A.,	W. Lisle Savage, Esq.
D.Litt., F.S.A.	Vicaji D. P. Taraporevala,
G. C. Drabble, Esq.	Esq.
Howard Coppuck Levis, Esq.,	Philip Thorburn, Esq.
F.S.A.	Philip Ziegler, Esq.

The number of Fellows is therefore :

	Ordinary.	Honorary.	Total.
June, 1918	277	16	293
Since elected	17	—	17
	294	16	310
Deceased	8	—	8
Resigned	4	—	4
	282	16	298

The Council have also to announce that they have decided to award the Society's Medal this year to M. Adrien Blanchet, Membre de l'Institut, in recognition of his services to Numismatics, notably in the Roman and Gaulish fields."

The Honorary Treasurer's Report, which follows, was then laid before the Meeting :

STATEMENT OF RECEIPTS AND DISBURSE

FROM JUNE 1st, 1918,

Dr.

THE ROYAL NUMISMATIC SOCIETY IN ACCOUNT

	£	s.	d.	£	s.	d.
To cost of <i>Chronicle</i> —						
Printing	227	5	5			
Plates	21	17	4			
				249	2	9
„ <i>Lantern Expenses</i>				9	6	10
„ <i>Rent, &c.</i>				40	10	4
„ <i>Sundry Payments</i>				8	13	6
„ <i>Subscription to Archaeological Joint Committee</i>				2	2	0
				£309	15	5
„ <i>Balance—</i>						
General Account	186	14	10			
Research Account	24	2	2			
				210	17	0
				£520	12	5

MENTS OF THE ROYAL NUMISMATIC SOCIETY

TO MAY 31ST, 1919.

WITH PERCY H. WERR, HON. TREASURER.

£s.

	£	s.	d.	£	s.	d.
<i>By Balance in hand—</i>						
General Account	121	19	1			
Research Account	22	13	8			
				144	12	9
<i>By Subscriptions—</i>						
214 Ordinary Subscriptions (less loss on foreign cheques, &c.)	224	13	0			
19 Entrance Fees	19	19	0			
1 Life Subscription	15	15	0			
				260	7	0
<i>By Sales of Chronides</i>				65	17	6
„ <i>Dividends on Investments</i>				26	16	10
„ <i>Return of Income Tax</i>				22	18	4
				£520	12	6

Audited and found correct,

LEOPOLD G. P. MESSENGER, }
HENRY GARSIDE, } *Hon. Auditors.*

June 13, 1919.

The Reports of the Council and Treasurer were adopted on the motion of the President.

Sir Arthur Evans then presented the Society's Medal to Mr. Allan to be forwarded to M. Blanchet, who was unable to be present, and addressed him as follows:

I am glad to be able to announce the award of our Numismatic Medal to Monsieur Adrien Blanchet of the Cabinet des Médailles.

It would be impossible for me on this occasion to do justice to Monsieur Blanchet's numismatic work, which extends over so many fields. I shall not, indeed, attempt more than a brief enumeration of some of the most important of his contributions to the subject. One of the most useful to those who have been engaged with the study of Ancient British coins is certainly his *Traité des Monnaies Gauloises*, published in 1905, containing a succinct review of the whole complicated material. A continual point of interest in this coinage, as in the parallel series of Britain, is the question of the origin of various designs from classical prototypes, and M. Blanchet has many illuminating observations on this head. In his *Études Numismatiques*, and in his more recently published *Mémoires et Notes de Numismatique*, he has shown himself capable of grappling with a series of numismatic problems, ranging from the classical department to that of mediæval and more modern France. Among his more special contributions may be mentioned his very useful record of the hoards of Roman coins found in France and its border-lands, including the two provinces that have now passed once more under French dominion. The extent of the task that he thus set himself to fulfil may be judged by the fact that his book contains an account of 868 discoveries of such hoards, with copious references to descriptions in previous works. Monsieur Blanchet has also collaborated with M. Schlumberger in a special work on the coinage of Béarn together with its jetons and medals. His *Nouveau Manuel de Numismatique du Moyen Age et Moderne* was crowned, like his Gaulish work, by the Académie des Inscriptions et Belles-Lettres.

M. Blanchet, I may add, has not confined himself to numismatic work and has made many general contributions to French archaeology. He has made special studies of Gallo-Roman figurines, of the enceintes of the Roman towns of Gaul and of their aqueducts and *clouacæ*, and he collaborated with Monsieur Babelon in the catalogue of ancient bronzes in the Bibliothèque Nationale.

It is a fitting tribute to our great ally that in the year of victory we should award our highest honour to a Frenchman who has made so many contributions to our own and kindred sciences. I need only add that it is a particular pleasure to myself to have to announce the award of our Numismatic Medal to Monsieur Blanchet. Like others who had to refer to the treasures of the Cabinet des Médailles, at the time when he was on its staff, I have been continually beholden to him for his unfailing courtesy and patience in furthering my researches.

Mr. Allan accepted the medal on behalf of M. Blanchet and read the following letter from him:

Paris, May 19, 1919.

To the Hon. Secretary of

The Royal Numismatic Society, London.

DEAR SIR,

Your letter announcing that the Medal of the Royal Numismatic Society has been awarded to me gives me great pleasure.

Indeed, I feel that, although I have been working for a long time, this high reward is offered me more for my future than for my past works. Such an honour will be a great support to me when I begin to feel more and more the heavy burden of our growing science.

I am very much moved to think that my name has proved the occasion of showing once more the close friendship of our glorious countries.

But I am very sorry that my health does not allow me to come just now to express all my thanks to the Royal

Numismatic Society, and you know that travelling is not easy now.

Therefore I beg you to present my excuses and express my gratitude.

I am, Sir,

Yours faithfully,

ADRIEN BLANCHET,

Membre de l'Institut.

10 Barl Émile Augier,
Paris, XVIe.

The President then delivered the following Address :

THE PRESIDENT'S ADDRESS.

When on June 18, 1914, the Society did me the honour to elect me President, neither you nor I could foresee that the *lustrum* then beginning would be occupied by the most serious struggle that this country has ever known. Yet the event that precipitated it happened within ten days of our Annual Meeting on that occasion. Even to-day, when, on the completion of five years' term of office, I hope to be able to welcome a successor in the Presidential Chair, though the Great War itself is formally suspended we certainly have not peace. Thus the whole period of my office has been filled with preoccupations and anxieties both on your part and my own, and it is much to be able to record that we have not only been able to hold our regular meetings but to publish much excellent work. That this should have been so in spite of such preoccupations, and notwithstanding the many difficulties in the way of communication—especially for those of us who lived at a distance—and for months of the year amid the perils of encircling darkness, is certainly a subject for congratulation. It may be said, indeed, that subjects like our own, bound up with history and art, and wrapped in the calm atmosphere of past ages, have often of their very

nature offered for the time being a welcome haven of refuge to minds harassed by the storms and horrors in which the present was involved.

In one department, indeed, that of "War Medals", we have been in immediate contact with the turmoil of current events. The output of these in Germany during the early period of the War was phenomenal, and I have been able myself to assist in the collection of several hundred for the National War Museum.

Mr. Hill exhibited to the Society specimens of another series presented to the British Museum and has made them the subject of a separate work. To the extraordinary character of some of these I have already called attention in a previous address, and, among them, the medal glorifying the sinking of the *Lusitania* will remain a record of national perversion long after the victims themselves are forgotten.

As President of your Society, I did something to endeavour to remedy the lack of worthy memorials of the successes won by our own arms by offering prizes for three medals commemorating the Jutland victory.

The Exhibition of Medallie Art in London, including a numerous series of English historical medals, did much to remind the public of the importance attached to such records of former feats of arms in this country. But the fact remains that the list of medals produced in this country by events of the War, though it includes some creditable efforts, is still lamentably deficient. It may be partly explained, no doubt, by the fact that fighting as we were what was in its essence a defensive war, striking triumphs and signal captures such as rewarded the German armies in so many parts of Europe were conspicuous by their absence. For us it was first of all a war of endurance, war in the trenches. But now that the victorious results—cumulative in their many-sided effects—have come home to us in an epoch of memorials of every kind, it may be at least hoped that a new impetus will be given to the issue of commemorative medals. It is therefore the more to be regretted that at this favourable juncture, owing to the niggardliness of the

Treasury, the authorities of the Mint should be debarred from issuing a 'Victory' coinage.

It is evident that, as time progresses, certain modifications in the character of numismatic research must become inevitable. The continuous record of coin-types that has extended over three or four centuries has done much to complete the story of actual discovery. What may be called the cataloguing stage is already far advanced. The number of wholly new types to be added to the register must become progressively smaller, though in some directions, and notably in the case of bronze coinages of local circulation, a large increase will undoubtedly reward careful investigations in the districts in question.

But the chief task before us shows itself to be more and more the revision and rearrangement on more scientific lines of the mass of material before us. Progress will mainly be achieved by minute and almost microscopic examination of groups of coins belonging to definite categories; by a still closer attention to the epigraphy, style and fabric, and weight of individual pieces, and to the analysis of their metal. But in such meticulous investigations the aim should be constantly before us of leading up to the illustration of broad historic truths and to results of wide bearing in the domain of art and of economic science. I am glad, therefore, to recognize that such methods and aims have been realized in many of the recent communications to the Society. To take the field of Roman numismatics, the study of Mr. Sydenham on the Roman Monetary System, of which we have had two instalments, brings many new factors into play. Mr. Mattingly, in his recent researches, has shown what good results can be obtained by paying minute attention to the fabric of different mints, and both his work and that of Mr. Webb, in his comparative study on the Monetary Reforms of Aurelian and Diocletian, have led to fruitful discussion. The investigation of special topics, such as the researches of Mr. Sydenham on the Memorial Coins of Augustus and Professor Oman's study of the Legionary Coins of Severus and Gallienus, have thrown new light

on both these subjects. In the Hellenic field, again, Mr. J. Mavrogordato, in his monograph, now happily completed, on the Chronological Arrangement of the Coins of Chios, has solved many difficult questions by his constant attention to minute points of style, weight, and epigraphy. Professor Oman, too, has turned the physiognomy of the hook-nosed Antiochus Grypus to good chronological account.

It would be impossible for me, and indeed it is beyond the scope of my present brief valedictory address, to do justice to the many successful attempts of members of this Society, on mediæval as well as classical ground, to carry out the very minute system of investigation that is at present imposed on our studies. Nor, I think, are any of those engaged on such contributions in danger of forgetting that the detailed touches that they have succeeded in adding all form part of the chiaroscuro of a broader historic picture.

We have to bear continually in mind that what is to be aimed at is not a mere compilation but the grouping together of types according to their logical relationship. I venture to believe, indeed, that in some branches, particularly in the field of ancient numismatics, something like a revolution must be carried out in the method of classification. The arrangement, for instance, at present adopted for the coinages of the Greek cities is doubly bad. Professor Percy Gardner's recent *History of Ancient Coinage*, to which I have already had occasion to refer, shows how a more living interest can be infused into Greek numismatics by a departure from the present mechanical system of arrangement, such as enables him to take cities in groups linked together by their commercial relations and using the same standard.

This rearrangement may, as Professor Gardner shows, be carried out in certain places and at certain periods with illuminating results. But the difficulty of laying down any general system on these lines lies in the fact that commercial hegemony in these various areas was continually changing and with it the standards in use. The main system of classification must in fact remain geographical; the unfortu-

nate fact with which we have to contend is that the geography that has been applied in the case of the coinages of the Greek cities is often of a mechanical and misleading character and largely taken from conditions prevailing in Roman imperial times.

I have already commented on the unnatural divorce of such historically linked cities as Calchedon and Byzantium or Rhegion and Zanklè. Even admitting the general convenience of taking the boundaries of Roman provinces as a base for geographical subdivisions of coinages of earlier periods—for, after all, they answer in most cases to boundaries suggested by physical conditions—we have only then arrived at the initial stage towards a true system of classification. No doubt it is something to have advanced beyond the crude alphabetic plan of old sale catalogues, starting off, let us say, from Abacaenum in Sicily and jumping straight to Abdera in Thrace. But even the improved method in vogue, though it confines the alphabetic system of arrangement to certain provincial or regional limits, still at every turn divorces the individual cities concerned from their true relationships.

I am aware that a new departure has already been made in this direction—as for instance by Mr. Head, who, in his *Historia Numorum*, divides Macedonia and Thrace into separate regions, grouping the coins within the confines of these. But classifiers of coins, even in scientific publications like the catalogues of the British Museum collection, have hitherto shrunk from this historic method.

The difficulty may be admitted. For mere purposes of reference the purely alphabetic method is the most convenient. But may not this mechanical difficulty be largely surmounted by prefacing the scientific divisions by a general alphabetic key? Or is it a great grievance to look out the name in the index? The present method constantly jars on the historic sense. Nay, more, it prevents the arrangement from fulfilling its illustrative end by divorcing closely allied civic types from one another and breaking up what are often really federal groups.

Take Sicily for example. There is a compact Western district which was occupied by a Hellenized Elymian population, and containing, among their more important towns, Segesta, Panormos, Eryx, and Motya. Their histories are interconnected, their types and certain mythological characteristics that they display are in many cases shared in common, and they exhibit remarkable dialectic peculiarities of their own. But, if a student wishes to look out the coinage of these cities, say, in the British Museum Catalogue, what does he find? Segesta will meet him at p. 131, following alphabetically on Petra and Paropus; Panormos on p. 120 follows immediately on Naxos of the extreme east of the island. Eryx of the extreme north-west closely succeeds Enna, the navel of the island, and Motya is placed in the same relation to Messena.

The problem is often more difficult than in the above instance, but I still venture to plead most earnestly for a classification that shall answer more nearly to the conditions both of history and of regional geography. Difficulties of classification beset every subject, but the substitution of a mere alphabetic list for a logical order is surely unworthy of numismatic science.

I will not here, however, discuss the matter further, since I hope to present a practical illustration of the historic method as applied to the ancient coinages of Crete.

Sir Arthur Evans then read a paper on "Contributions to Cretan Numismatics", which will be printed in the *Chronicle*.

A vote of thanks having been proposed to the President for his address, the result of the ballot for office-bearers for 1919-1920 was announced as follows:

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PROFESSOR C. OMAN, M.P., M.A., LL.D., F.S.A., F.B.A.

Vice-Presidents.

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FREDERICK A. WALTERS, Esq., F.S.A.

Prof. Oman proposed a vote of thanks to the retiring President, Sir Arthur Evans, for his services during the past five years, and Sir Arthur Evans replied.

The President then proposed a vote of thanks to the Auditors and Scrutineers, and adjourned the Society till October.





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